NRG Energy, Inc.
P.O. Box 1001
1866 River Road
Middletown, CT 06457

September 19, 2013

Mr. Gene Shteynberg
CT Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106

Subject: Semi-Annual Site Status Update
Middletown Station, 1866 River Road, CT

Dear Mr. Shteynberg:

Middletown Power LLC respectfully submits the enclosed Semi-Annual Site Status Update prepared by Shaw Environmental, Inc. (a CB&I Company) for the Middletown Station. This status update covers environmental activities performed from February 2013 through July 2013 at the subject site.

Please contact Keith Shortsleeve, Environmental Compliance Specialist at Middletown Power LLC with any questions or for additional information at (860) 638-3102 or via email at keith.shortsleeve@nrgenergy.com.

Sincerely,
Middletown Power LLC

Jeffrey Araujo
Plant Manager

Cc: K. Shortsleeve, Middletown Power LLC (hard copy and electronic)
B. Spooner, NRG (electronic)
Juan Perez, USEPA (electronic)
A. Walker, LEP, Shaw (electronic)
File

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Shaw Environmental, Inc.
(a CB&I Company)
150 Royall Street
Canton, Massachusetts 02021
617-589-5111
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September 19, 2013

Project #: 1009634024.13

Mr. Gene Shteynberg
CT Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106

Subject: Semi-Annual Site Status Update
Middletown Generating Station
Middletown, CT

Dear Mr. Shteynberg:

On behalf of Middletown Power LLC, Shaw Environmental, Inc. (Shaw), a CB&I company, has prepared this letter to provide a semi-annual site status update for the subject site. In addition, Shaw is providing the Connecticut Department of Energy & Environmental Protection (CTDEEP) with a schedule for continuing environmental activities at the site.

FEBRUARY 2013 THROUGH JULY 2013 ACTIVITIES

Environmental field activities completed at the site between February 2013 and July 2013 include groundwater monitoring and SB-1 Engineered Control (EC) inspections. These activities are discussed below. Other environmental activities completed for the subject site during this reporting period include the following:

- Significant progress continues to be made in obtaining property access approval from the Connecticut Department of Transportation (ConnDOT). Access is required to implement the EC in the southeast portion of SB-2 which extends onto ConnDOT property. An agreement is anticipated to be reached in 2013.

- On June 18, 2013, ConnDOT met with Middletown Power, Murtha Cullina LLP, and Shaw to review access issues and the Environmental Land Use Restriction (ELUR) draft declaration and decision documents that were recently prepared for the ConnDOT property. Action items from the meeting that are still in progress include:

    - ConnDOT was going to further review the land appraisal submitted by Middletown Power LLC's parent company, NRG Energy, Inc. (NRG), and provide additional feedback in the near future;
    - NRG was to evaluate the discrepancy in acreage to determine whether the appraisal's description of two acres is correct; and
    - ConnDOT was going to prepare a revised draft access agreement for review by NRG.

- Draft ELUR maps were prepared using the ALTA-quality survey from 2012 prepared by URS and highlighting proposed ELUR areas and CL&P easements.

- NRG met with representatives from Pratt and Whitney (P&W) in June 2013 regarding the P&W property abutting Middletown Station's parcel to the east. Impacted inland sediment has been identified on the P&W property. P&W showed NRG some of the sampling locations and site features.

Groundwater Monitoring

Shaw conducted a groundwater sampling event on May 9 and 10, 2013. Groundwater monitoring and sampling was completed at twelve monitoring wells in May 2013, including the two new wells installed in June 2012. Monitoring well locations are shown on the site plans (**Figures 1** and **2**). A list of the monitoring wells sampled and the analyses conducted is provided in the table below. Laboratory analysis was completed by Accutest Laboratories in Marlboro, Massachusetts. The groundwater sampling event was generally consistent with the monitoring plan provided in EC Part 2 dated November 2010 and the Site-Wide Remedial Action Plan (RAP) dated October 2011.

Location	Laboratory Analysis May 9 and 10, 2013 Groundwater Monitoring Event		
	PAH	Metals	ETPH
TW-10		X	X
TW-14		X	
TW-17D		X	
TW-18		X	
TW-21D		X	
AOC01-MW1R		X	
AOC01-MW2		X	
AOC02-SB1-MW1		X	
AOC05-MW1	X		X
AOC08-SB1-MW1	X	X	X
AOC09-SB1-MW1	X		X
AOC09-SB2-MW2	X	X	X

Notes: 1. Polycyclic aromatic hydrocarbons (PAH) including 2-methlynapthalene by EPA Method 8270 SIM.
2. Total Metals including arsenic, lead, selenium, vanadium, and zinc by EPA Method 6010C.
3. Extractable petroleum hydrocarbons (ETPH) by Connecticut Department of Public Health Method.

During the May 2013 groundwater sampling event, depth to groundwater was measured at each of the monitoring wells using an electronic interface probe (IP) capable of detecting light non-aqueous phase liquid (LNAPL). LNAPL was not detected in monitoring wells gauged during this event. Results of water level monitoring can be found in **Table 1**.

During the May 2013 groundwater monitoring event, Shaw collected groundwater samples from the monitoring wells listed in the above table using a modified low flow sampling technique. No samples were field filtered. Each well was pumped at a rate that produced little or no drawdown while parameters including temperature, pH, dissolved oxygen, turbidity, and conductivity were monitored. Groundwater samples were then collected after the parameters stabilized to ensure that the groundwater sample was representative of local aquifer conditions. Laboratory analysis of each sample is noted in the table above. Complete laboratory analytical reports are provided in **Attachment 1.**

The groundwater analytical results from the May 2013 sampling event and the three previous sampling events are summarized in **Table 2.** This table compares the results to applicable criteria for this site, which is classified as groundwater GB. The results of the May 2013 event are generally consistent with the previous several events. Compounds detected in groundwater samples collected in May 2013 include the following:

- Acenaphthene and fluorene were detected in the groundwater sample collected from AOC08-SB1-MW1 at 0.36 micrograms per liter (µg/L) and 0.060 µg/L, respectively. Acenaphthene and fluorene were detected in the field duplicate groundwater sample collected from AOC09-SB2-MW2 at 0.38 µg/L and 0.53 µg/L, respectively, but were not detected in the primary sample. There is no established Connecticut Surface Water Protection Criteria (SWPC) for acenaphthene. The detected concentrations of fluorene are less than the SWPC of 140,000 µg/L.

- Arsenic was detected in groundwater samples collected from AOC01-MW2 at 6.2 µg/L and AOC09-SB2-MW2 at 7.3 µg/L. The concentrations slightly exceeded the SWPC of 4 µg/L.

- Selenium was detected in groundwater samples collected from AOC01-MW1R at 10 µg/L, TW-17D at 29.7 µg/L, and TW-21D at 26 µg/L. The concentrations detected were less than the SWPC of 50 µg/L.

- Vanadium was detected in groundwater samples collected from AOC01-MW2 at 5.9 µg/L, AOC02-SB1-MW1 at 3.2 µg/L, TW-17D at 408 µg/L, TW-18 at 11 µg/L (11.8 µg/L in the field duplicate), and TW-21D at 17.3 µg/L. There is no established SWPC for vanadium. However, as a point of reference, the CTDEEP has approved an additional SWPC of 1,500 µg/L for the NRG Devon facility in Milford, CT and the Massachusetts Department of Environmental Protection (MADEP) GW-3 standard is 4,000 µg/L.

- Zinc was detected in groundwater samples collected from AOC01-MW1R at 5.5 µg/L, AOC01-MW2 at 7.5 µg/L, AOC02-SB1-MW1 at 7.4 µg/L, TW-10 at 4.3 µg/L, TW-14 at 16.7 µg/L, TW-17D at 11.7 µg/L, and TW-21D at 9.1 µg/L. The concentrations detected were less than the SWPC of 123 µg/L.

- ETPH was detected in groundwater samples collected from AOC08-SB1-MW1 at 1.23 mg/L (1.15 mg/L in the field duplicate) and AOC09-SB2-MW2 at 0.332 mg/L. There is no established SWPC for ETPH. However, ETPH was not detected in May 2013 in the groundwater sample collected from AOC09-SB1-MW1, which is located further downgradient closer to the river, illustrating general compliance with the SWPC.

Laboratory analysis completed as part of these site activities was requested to be conducted in accordance with CTDEEP's Reasonable Confidence Protocol (RCP). The work completed during this reporting period was performed in general accordance with the site specific Quality Assurance Project Plan (QAPP). Shaw performed data validation reviews for each laboratory report. The data validation work sheets are attached to the laboratory reports included in **Attachment 1**. The laboratory analysis was completed in accordance with CTDEEP's RCP; however, a few minor quality assurance/quality control (QA/QC) issues, which are summarized in the validation worksheets and laboratory report narrative, were identified. QA/QC issues noted included:

- In laboratory report MC20685, due to the presence of low levels of naphthalene in a field blank sample, associated samples with positive results reported at < 5 times the concentration detected in the field blank were qualified as non-detect ("U").
- In laboratory report MC20685, due to the presence of low levels of zinc in a field blank sample, associated samples with positive results reported at < 5 times the concentration detected in the field blank were qualified as non-detect ("U").

A number of sample results for metals and PAHs were reported at concentrations less than the reporting limit but greater than the method detection limit. Although this is not specifically a QA/QC issue, the results should be considered estimated and are qualified with a "J" unless "U" qualified due to blank contamination. In summary, the qualifications applied to the results had no overall effect on the conclusions drawn from the data, and the data, as qualified, is acceptable for the purposes of this submittal.

SB-1 EC Inspections

As stated in Section 6.0 of the CTDEEP-approved EC, routine inspections of the EC installed at SB-1 began one month after project completion and quarterly for the first year. Since the SB-1 EC was completed in September 2011, the facility and Shaw have conducted the required periodic inspections of the SB-1 EC in October 2011, January 2012, April 2012, October 2012, December 2012, February 2013, and June 2013. NRG conducted routine EC inspections on February 5, 2013 and June 6, 2013. During the inspections, the EC was observed to be in reasonable condition with no significant signs of a washout, erosion, or other failure. A modified version of Table 1 of the EC Part 2, the Engineered Control Inspection Checklist, was completed to document the inspections (**Attachment 2**).

Construction of Site-Wide Engineered Control

Construction of the site-wide Engineered Control has been on hold since December 20, 2012 when work was stopped for the winter on account of inclement weather and the holidays. Work restart has been delayed for several reasons. During this down time, NRG transitioned to a new procurement system which voided old contracts. This system change required the construction contractor to re-register with NRG to receive a new contract from the new system. NRG and the contractor are also considering one mobilization for the final components of the Engineered Control construction which requires that the access agreement with ConnDOT be finalized. That access agreement is still pending. In May 2013, NRG began reviewing options to complete the asphalt pavement component of the EC construction. Specifically, NRG will solicit contractor bids for milling pavement in select areas that were originally slated only for repair. In addition, NRG is evaluating renewable energy projects per the request for proposals issued by CTDEEP in July 2013 which may affect long-term use of the Engineered Control areas.

SITE SCHEDULE

Outlined below is a site schedule that Middletown Power LLC and NRG, expect to follow in the next two years.

Activity	Anticipated Date
Continued Groundwater Monitoring	Q4 2013
RAP Complete (i.e., construction complete)	Q2 2014
RAP Completion Report (includes Engineered Control Completion Report)	Q3 2014
Post Remediation Monitoring	2015

NRG will continue to provide updates on the status of response actions at the subject site on a semi-annual basis as requested by CTDEEP. Plans, submittals, and reports will be copied to the USEPA.

If you have any questions regarding this letter or any other matter, please do not hesitate to call me at 617.589.6143.

Sincerely,

Andrew D. Walker, LEP, LSP
Project Manager
Shaw Environmental, Inc.
A CB&I Company

Email Address: Andrew.Walker@CBI.com

Enclosures:

Table 1 – Groundwater Gauging Data
Table 2 – Groundwater Analytical Results – May 2011 through May 2013

Figure 1 – Site Plan – Western
Figure 2 – Site Plan – Eastern

Attachment 1 – Laboratory Analytical Report
Attachment 2 – Engineered Control Inspection Checklists

cc: Keith Shortsleeve, Middletown Power LLC (hard copy and electronic copy)
Robert Spooner, NRG (electronic copy)
Juan Perez, USEPA (electronic copy)

TABLES

TABLE 1
GROUNDWATER GAUGING DATA *08/01/13*
(05/09/13 - 05/10/13)

Middletown Power LLC
1866 River Road
Middletown, Connecticut

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Groundwater Elevation (Feet)	Notes
AOC01-MW1R	05/10/13	NA	32.16	--	--	NA	DTB = 39.40'
AOC01-MW2	05/10/13	NA	30.40	--	--	NA	DTB = 39.75'
AOC02-SB1-MW1	05/10/13	27.60	25.27	--	--	2.33	DTB = 35.72'
AOC05-MW1	05/09/13	21.27	13.99	--	--	7.28	DTB = 24.33'
AOC08-SB1-MW1	05/09/13	25.38	19.71	--	--	5.67	DTB = 32.01'
AOC09-SB1-MW1	05/09/13	27.39	24.80	--	--	2.59	DTB = 34.60'
AOC09-SB2-MW2	05/09/13	24.92	22.09	--	--	2.83	DTB = 34.52'
TW-10	05/10/13	32.60	29.65	--	--	2.95	DTB = 47.55'
TW-14	05/10/13	28.33	25.60	--	--	2.73	DTB = 46.62'
TW-17D	05/10/13	34.48	32.30	--	--	2.18	DTB = 41.83'
TW-18	05/09/13	36.92	34.18	--	--	2.74	DTB = 41.18'
TW-21D	05/10/13	34.42	31.92	--	--	2.50	DTB = 36.93'

Notes: -- = Not Detected NA = Not Available NM = Not Measured DTB = Depth to Bottom

Table 2
Groundwater Analytical Results - May 2011 through May 2013
Middletown Power LLC
Middletown, CT

CONSTITUENT	SWPC	AOC01-MW1R 7/9/2012 Primary	AOC01-MW1R 5/10/2013 Primary	AOC01-MW2 7/9/2012 Primary	AOC01-MW2 5/10/2013 Primary	AOC02-SB1-MW1 5/16/2011 Primary	AOC02-SB1-MW1 11/16/2011 Primary	AOC02-SB1-MW1 7/10/2012 Primary	AOC02-SB1-MW1 5/10/2013 Primary	AOC04-SB1-MW1 5/16/2011 Primary
SVOCs (ug/L)										
2-Methylnaphthalene	NE	---	---	---	---	---	---	---	---	---
Acenaphthene	NE	---	---	---	---	---	---	---	---	---
Acenaphthylene	0.3	---	---	---	---	---	---	---	---	---
Anthracene	1100000	---	---	---	---	---	---	---	---	---
Benzo(a)anthracene	0.3	---	---	---	---	---	---	---	---	---
Benzo(a)pyrene	0.3	---	---	---	---	---	---	---	---	---
Benzo(b)fluoranthene	0.3	---	---	---	---	---	---	---	---	---
Benzo(ghi)perylene	NE	---	---	---	---	---	---	---	---	---
Benzo(k)fluoranthene	0.3	---	---	---	---	---	---	---	---	---
Chrysene	NE	---	---	---	---	---	---	---	---	---
Dibenzo(a,h)anthracene	NE	---	---	---	---	---	---	---	---	---
Fluoranthene	3700	---	---	---	---	---	---	---	---	---
Fluorene	140000	---	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	NE	---	---	---	---	---	---	---	---	---
Naphthalene	NE	---	---	---	---	---	---	---	---	---
Phenanthrene	0.3	---	---	---	---	---	---	---	---	---
Pyrene	110000	---	---	---	---	---	---	---	---	---
Metals (Total) (ug/L)										
Arsenic	4	<4.0	<2.9	<4.0	**{6.2}**	<4.0	<4.0	<4.0	<2.9	---
Cadmium	6	---	---	---	---	<4.0	---	---	---	---
Chromium	110	---	---	---	---	<10	---	---	---	---
Copper	48	---	---	---	---	<25	---	---	---	---
Lead	13	<5.0	<1.7	<5.0	<1.7	<5.0	<5.0	<5.0	<1.7	---
Nickel	880	---	---	---	---	<40	---	---	---	---
Selenium	50	12.2	10	<10	<4.8	<10	<10	<10	<4.8	---
Vanadium	NE	<10	<2.8	<10	5.9BJ	<10	<10	<10	3.2BJ	---
Zinc	123	<20	5.5BJ	<20	7.5BJ	25	<20	<20	7.4BJ	---
CT ETPH (mg/L)										
ETPH	NE	---	---	---	---	---	---	---	---	---

Notes:
SWPC = Connecticut Surface Water Protection Criteria.
--- = Constituent not analyzed for.
NA = Not applicable.
NE = Not established.
mg/L = milligrams per liter.
ug/L = micrograms per liter.
{Bold} exceeds least stringent applicable criteria.
J = Estimated value based on validation.
U = Below detection limit as determined by validator.
B = Analyte found in assoicated method blank as determined by validator.

Table 2
Groundwater Analytical Results - May 2011 through May 2013
Middletown Power LLC
Middletown, CT

CONSTITUENT	SWPC	AOC04-SB1-MW1 5/16/2011 Duplicate 1	AOC05-MW1 5/16/2011 Primary	AOC05-MW1 5/9/2013 Primary	AOC08-SB1-MW1 5/16/2011 Primary	AOC08-SB1-MW1 5/16/2011 Duplicate 1	AOC08-SB1-MW1 11/16/2011 Primary	AOC08-SB1-MW1 11/16/2011 Duplicate 1	AOC08-SB1-MW1 7/10/2012 Primary	AOC08-SB1-MW1 7/10/2012 Duplicate 1
SVOCs (ug/L)										
2-Methylnaphthalene	NE	---	---	<0.052	<0.20	---	<0.20	---	<0.20	---
Acenaphthene	NE	---	---	<0.014	<0.10	---	0.56	---	<0.10	---
Acenaphthylene	0.3	---	---	<0.013	<0.10	---	<0.10	---	<0.10	---
Anthracene	1100000	---	---	<0.018	<0.10	---	<0.10	---	<0.10	---
Benzo(a)anthracene	0.3	---	---	<0.030	<0.050	---	<0.050	---	<0.050	---
Benzo(a)pyrene	0.3	---	---	<0.017	<0.10	---	<0.10	---	<0.10	---
Benzo(b)fluoranthene	0.3	---	---	<0.024	<0.050	---	<0.050	---	<0.050	---
Benzo(ghi)perylene	NE	---	---	<0.038	<0.10	---	<0.10	---	<0.10	---
Benzo(k)fluoranthene	0.3	---	---	<0.059	<0.10	---	<0.10	---	<0.10	---
Chrysene	NE	---	---	<0.073	<0.10	---	<0.10	---	<0.10	---
Dibenzo(a,h)anthracene	NE	---	---	<0.042	<0.10	---	<0.10	---	<0.10	---
Fluoranthene	3700	---	---	<0.033	<0.10	---	<0.10	---	<0.10	---
Fluorene	140000	---	---	<0.046	<0.10	---	0.61	---	<0.10	---
Indeno(1,2,3-cd)pyrene	NE	---	---	<0.046	<0.10	---	<0.10	---	<0.10	---
Naphthalene	NE	---	---	<0.036	<0.10	---	<0.10	---	<0.10	---
Phenanthrene	0.3	---	---	<0.013	<0.050	---	0.086	---	<0.050	---
Pyrene	110000	---	---	<0.036	<0.10	---	<0.10	---	<0.10	---
Metals (Total) (ug/L)										
Arsenic	4	---	---	---	<4.0	---	<4.0	---	<4.0	---
Cadmium	6	---	---	---	<4.0	---	---	---	---	---
Chromium	110	---	---	---	<10	---	---	---	---	---
Copper	48	---	---	---	<25	---	---	---	---	---
Lead	13	---	---	---	<5.0	---	<5.0	---	<5.0	---
Nickel	880	---	---	---	<40	---	---	---	---	---
Selenium	50	---	---	---	<10	---	<10	---	<10	---
Vanadium	NE	---	---	---	<10	---	<10	---	<10	---
Zinc	123	---	---	---	<20	---	<20	---	<20	---
CT ETPH (mg/L)										
ETPH	NE	---	---	<0.060	1.49	1.57	1.31	1.39	1.07	0.91

Notes:
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ug/L = micrograms per liter.
{Bold} exceeds least stringent applicable criteria.
J = Estimated value based on validation.
U = Below detection limit as determined by validator.
B = Analyte found in assoicated method blank as determined by validator.

Table 2
Groundwater Analytical Results - May 2011 through May 2013
Middletown Power LLC
Middletown, CT

CONSTITUENT	SWPC	AOC08-SB1-MW1 5/9/2013 Primary	AOC08-SB1-MW1 5/9/2013 Duplicate 1	AOC09-SB1-MW1 5/16/2011 Primary	AOC09-SB1-MW1 5/16/2011 Duplicate 1	AOC09-SB1-MW1 11/16/2011 Primary	AOC09-SB1-MW1 7/10/2012 Primary	AOC09-SB1-MW1 5/9/2013 Primary	AOC09-SB2-MW2 5/16/2011 Primary	AOC09-SB2-MW2 5/16/2011 Duplicate 1
SVOCs (ug/L)										
2-Methylnaphthalene	NE	<0.052	---	---	---	---	---	<0.052	<0.20	---
Acenaphthene	NE	0.36	---	---	---	---	---	<0.014	<0.10	---
Acenaphthylene	0.3	<0.013	---	---	---	---	---	<0.013	<0.10	---
Anthracene	1100000	<0.018	---	---	---	---	---	<0.018	<0.10	---
Benzo(a)anthracene	0.3	<0.030	---	---	---	---	---	<0.030	<0.050	---
Benzo(a)pyrene	0.3	<0.017	---	---	---	---	---	<0.017	<0.10	---
Benzo(b)fluoranthene	0.3	<0.024	---	---	---	---	---	<0.024	<0.050	---
Benzo(ghi)perylene	NE	<0.038	---	---	---	---	---	<0.038	<0.10	---
Benzo(k)fluoranthene	0.3	<0.059	---	---	---	---	---	<0.059	<0.10	---
Chrysene	NE	<0.073	---	---	---	---	---	<0.073	<0.10	---
Dibenzo(a,h)anthracene	NE	<0.042	---	---	---	---	---	<0.042	<0.10	---
Fluoranthene	3700	<0.033	---	---	---	---	---	<0.033	<0.10	---
Fluorene	140000	0.060JJ	---	---	---	---	---	<0.046	0.17	---
Indeno(1,2,3-cd)pyrene	NE	<0.046	---	---	---	---	---	<0.046	<0.10	---
Naphthalene	NE	<0.036	---	---	---	---	---	<0.075JBU	<0.10	---
Phenanthrene	0.3	<0.013	---	---	---	---	---	<0.013	<0.050	---
Pyrene	110000	<0.036	---	---	---	---	---	<0.036	<0.10	---
Metals (Total) (ug/L)										
Arsenic	4	<2.9	---	<4.0	<4.0	<4.0	<4.0	---	<4.0	---
Cadmium	6	---	---	<4.0	<4.0	---	---	---	<4.0	---
Chromium	110	---	---	<10	<10	---	---	---	<10	---
Copper	48	---	---	<25	<25	---	---	---	<25	---
Lead	13	<1.7	---	<5.0	<5.0	<5.0	<5.0	---	<5.0	---
Nickel	880	---	---	<40	<40	---	---	---	<40	---
Selenium	50	<4.8	---	<10	<10	<10	<10	---	<10	---
Vanadium	NE	<2.8	---	<10	<10	<10	<10	---	<10	---
Zinc	123	<3.6BU	---	<20	<20	<20	<20	---	22.7	---
CT ETPH (mg/L)										
ETPH	NE	1.23	1.15	---	---	---	---	<0.061	0.61	0.595

Notes:
SWPC = Connecticut Surface Water Protection Criteria.
--- = Constituent not analyzed for.
NA = Not applicable.
NE = Not established.
mg/L = milligrams per liter.
ug/L = micrograms per liter.
{Bold} exceeds least stringent applicable criteria.
J = Estimated value based on validation.
U = Below detection limit as determined by validator.
B = Analyte found in assoicated method blank as determined by validator.

Table 2
Groundwater Analytical Results - May 2011 through May 2013
Middletown Power LLC
Middletown, CT

CONSTITUENT	SWPC	AOC09-SB2-MW2 11/16/2011 Primary	AOC09-SB2-MW2 11/16/2011 Duplicate 1	AOC09-SB2-MW2 7/10/2012 Primary	AOC09-SB2-MW2 7/10/2012 Duplicate 1	AOC09-SB2-MW2 5/9/2013 Primary	AOC09-SB2-MW2 5/9/2013 Duplicate 1	TW-10 5/16/2011 Primary	TW-10 11/17/2011 Primary	TW-10 7/9/2012 Primary	TW-10 5/10/2013 Primary
SVOCs (ug/L)											
2-Methylnaphthalene	NE	<0.20	<0.20	<0.20	<0.20	<0.052	<0.053	---	---	---	---
Acenaphthene	NE	0.11	0.31	<0.10	<0.10	<0.014	0.38	---	---	---	---
Acenaphthylene	0.3	<0.10	<0.10	<0.10	<0.10	<0.013	<0.014	---	---	---	---
Anthracene	1100000	<0.10	<0.10	<0.10	<0.10	<0.018	<0.018	---	---	---	---
Benzo(a)anthracene	0.3	<0.050	<0.050	<0.050	<0.050	<0.030	<0.031	---	---	---	---
Benzo(a)pyrene	0.3	<0.10	<0.10	<0.10	<0.10	<0.017	<0.018	---	---	---	---
Benzo(b)fluoranthene	0.3	<0.050	<0.050	<0.050	<0.050	<0.024	<0.024	---	---	---	---
Benzo(ghi)perylene	NE	<0.10	<0.10	<0.10	<0.10	<0.038	<0.038	---	---	---	---
Benzo(k)fluoranthene	0.3	<0.10	<0.10	<0.10	<0.10	<0.059	<0.060	---	---	---	---
Chrysene	NE	<0.10	<0.10	<0.10	<0.10	<0.073	<0.074	---	---	---	---
Dibenzo(a,h)anthracene	NE	<0.10	<0.10	<0.10	<0.10	<0.042	<0.043	---	---	---	---
Fluoranthene	3700	<0.10	<0.10	<0.10	<0.10	<0.033	<0.033	---	---	---	---
Fluorene	140000	0.1	<0.10	<0.10	<0.10	<0.046	0.53	---	---	---	---
Indeno(1,2,3-cd)pyrene	NE	<0.10	<0.10	<0.10	<0.10	<0.046	<0.047	---	---	---	---
Naphthalene	NE	<0.10	<0.10	<0.10	<0.10	<0.036	<0.037	---	---	---	---
Phenanthrene	0.3	<0.050	<0.050	<0.050	<0.050	<0.013	<0.013	---	---	---	---
Pyrene	110000	<0.10	<0.10	<0.10	<0.10	<0.036	<0.036	---	---	---	---
Metals (Total) (ug/L)											
Arsenic	4	<4.0	---	<4.0	---	**{7.3}**	---	**{5.5}**	<4.0	<4.0	<2.9
Cadmium	6	---	---	---	---	---	---	<4.0	---	---	---
Chromium	110	---	---	---	---	---	---	<10	---	---	---
Copper	48	---	---	---	---	---	---	<25	---	---	---
Lead	13	<5.0	---	<5.0	---	<1.7	---	<5.0	<5.0	<5.0	<1.7
Nickel	880	---	---	---	---	---	---	<40	---	---	---
Selenium	50	<10	---	<10	---	<4.8	---	<10	<10	<10	<4.8
Vanadium	NE	<10	---	<10	---	<2.8	---	13	<10	<10	<2.8
Zinc	123	42.3	---	<20	---	<20.4U	---	<20	<20	<20	4.3BJ
CT ETPH (mg/L)											
ETPH	NE	0.835	---	0.27	---	0.332	---	<0.080	<0.080	<0.080	<0.060

Notes:
SWPC = Connecticut Surface Water Protection Criteria.
--- = Constituent not analyzed for.
NA = Not applicable.
NE = Not established.
mg/L = milligrams per liter.
ug/L = micrograms per liter.
{Bold} exceeds least stringent applicable criteria.
J = Estimated value based on validation.
U = Below detection limit as determined by validator.
B = Analyte found in assoicated method blank as determined by validator.

Table 2
Groundwater Analytical Results - May 2011 through May 2013
Middletown Power LLC
Middletown, CT

CONSTITUENT	SWPC	TW-14 5/16/2011 Primary	TW-14 11/17/2011 Primary	TW-14 7/9/2012 Primary	TW-14 5/10/2013 Primary	TW-17D 5/16/2011 Primary	TW-17D 11/17/2011 Primary	TW-17D 7/9/2012 Primary	TW-17D 5/10/2013 Primary	TW-18 5/16/2011 Primary	TW-18 11/17/2011 Primary	TW-18 11/17/2011 Duplicate 1	TW-18 7/9/2012 Primary
SVOCs (ug/L)													
2-Methylnaphthalene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Acenaphthylene	0.3	---	---	---	---	---	---	---	---	---	---	---	---
Anthracene	1100000	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)anthracene	0.3	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(a)pyrene	0.3	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(b)fluoranthene	0.3	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(ghi)perylene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Benzo(k)fluoranthene	0.3	---	---	---	---	---	---	---	---	---	---	---	---
Chrysene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Dibenzo(a,h)anthracene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Fluoranthene	3700	---	---	---	---	---	---	---	---	---	---	---	---
Fluorene	140000	---	---	---	---	---	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Naphthalene	NE	---	---	---	---	---	---	---	---	---	---	---	---
Phenanthrene	0.3	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	110000	---	---	---	---	---	---	---	---	---	---	---	---
Metals (Total) (ug/L)													
Arsenic	4	<4.0	<4.0	<4.0	<2.9	<4.0	<4.0	<4.0	<2.9	**{4.1}**	<4.0	<4.0	4
Cadmium	6	<4.0	---	---	---	<4.0	---	---	---	<4.0	---	---	---
Chromium	110	<10	---	---	---	<10	---	---	---	<10	---	---	---
Copper	48	<25	---	---	---	<25	---	---	---	<25	---	---	---
Lead	13	<5.0	<5.0	<5.0	<1.7	<5.0	<5.0	<5.0	<1.7	<5.0	<5.0	7.7	<5.0
Nickel	880	<40	---	---	---	<40	---	---	---	<40	---	---	---
Selenium	50	<10	<10	<10	<4.8	**{53.2}**	**{63.6}**	38.3	29.7	15.4	<10	<10	<10
Vanadium	NE	<10	<10	<10	<2.8	612	762	410	408	92.4	50	53.7	39.3
Zinc	123	<20	<20	<20	16.7BJ	<20	<20	<20	11.7BJ	<20	<20	23.4	20.9
CT ETPH (mg/L)													
ETPH	NE	0.132	<0.080	0.0956	---	---	---	---	---	---	---	---	---

Notes:
SWPC = Connecticut Surface Water Protection Criteria.
--- = Constituent not analyzed for.
NA = Not applicable.
NE = Not established.
mg/L = milligrams per liter.
ug/L = micrograms per liter.
{Bold} exceeds least stringent applicable criteria.
J = Estimated value based on validation.
U = Below detection limit as determined by validator.
B = Analyte found in assoicated method blank as determined by validator.

Table 2
Groundwater Analytical Results - May 2011 through May 2013
Middletown Power LLC
Middletown, CT

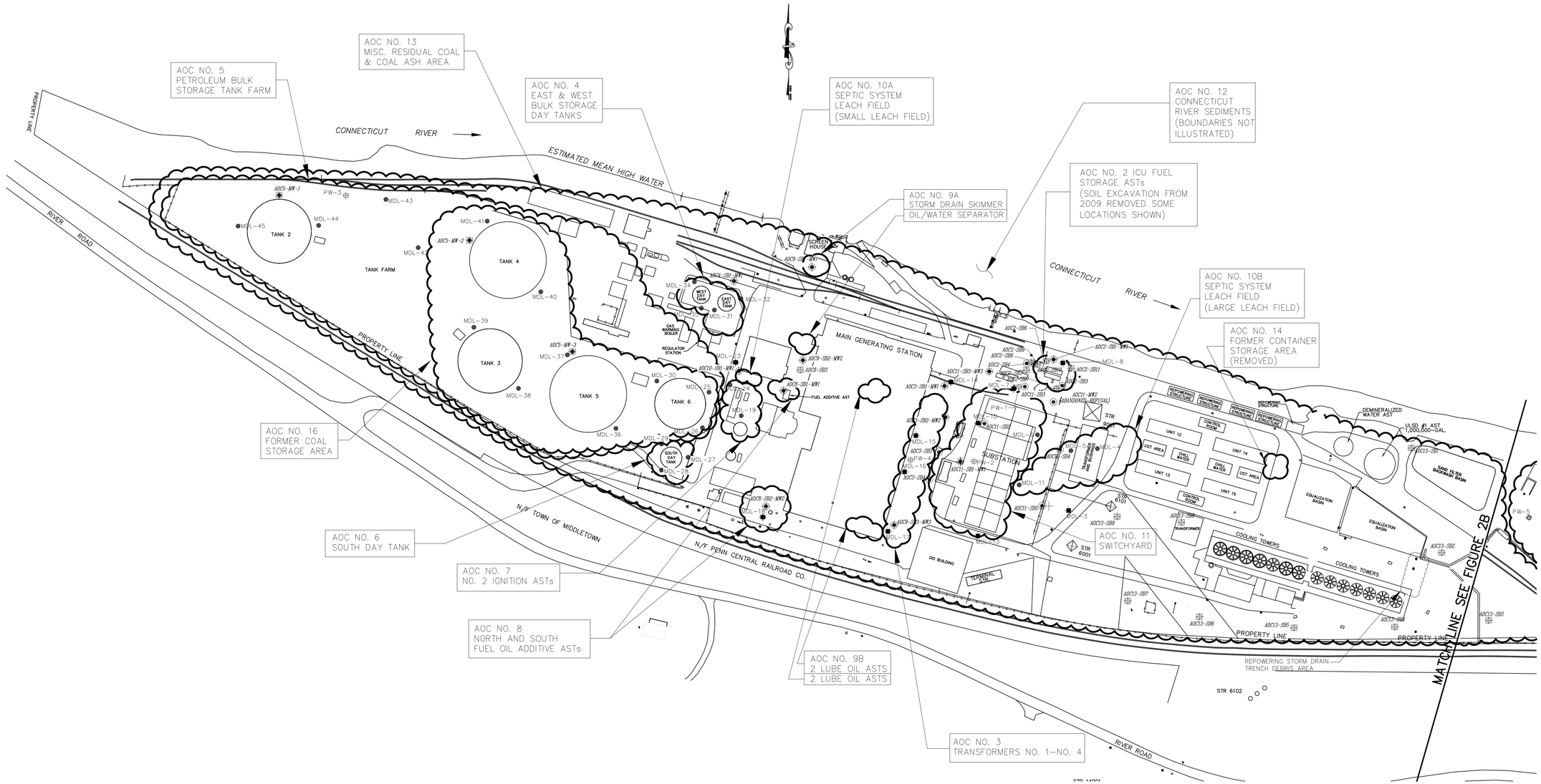
CONSTITUENT	SWPC	TW-18 7/9/2012 Duplicate 1	TW-18 5/9/2013 Primary	TW-18 5/9/2013 Duplicate 1	TW-21D 5/16/2011 Primary	TW-21D 11/17/2011 Primary	TW-21D 7/9/2012 Primary	TW-21D 5/10/2013 Primary
SVOCs (ug/L)								
2-Methylnaphthalene	NE	---	---	---	---	---	---	---
Acenaphthene	NE	---	---	---	---	---	---	---
Acenaphthylene	0.3	---	---	---	---	---	---	---
Anthracene	1100000	---	---	---	---	---	---	---
Benzo(a)anthracene	0.3	---	---	---	---	---	---	---
Benzo(a)pyrene	0.3	---	---	---	---	---	---	---
Benzo(b)fluoranthene	0.3	---	---	---	---	---	---	---
Benzo(ghi)perylene	NE	---	---	---	---	---	---	---
Benzo(k)fluoranthene	0.3	---	---	---	---	---	---	---
Chrysene	NE	---	---	---	---	---	---	---
Dibenzo(a,h)anthracene	NE	---	---	---	---	---	---	---
Fluoranthene	3700	---	---	---	---	---	---	---
Fluorene	140000	---	---	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	NE	---	---	---	---	---	---	---
Naphthalene	NE	---	---	---	---	---	---	---
Phenanthrene	0.3	---	---	---	---	---	---	---
Pyrene	110000	---	---	---	---	---	---	---
Metals (Total) (ug/L)								
Arsenic	4	**{5.0}**	<2.9	<2.9	<4.0	<4.0	<4.0	<2.9
Cadmium	6	---	---	---	<4.0	---	---	---
Chromium	110	---	---	---	<10	---	---	---
Copper	48	---	---	---	<25	---	---	---
Lead	13	<5.0	<1.7	<1.7	<5.0	<5.0	<5.0	<1.7
Nickel	880	---	---	---	<40	---	---	---
Selenium	50	<10	<4.8	<4.8	48.6	**{77.0}**	24.7	26
Vanadium	NE	59.6	11	11.8	<10	<10	10.4	17.3
Zinc	123	21.5	<6.7BU	<10.2BU	<20	<20	<20	9.1BJ
CT ETPH (mg/L)								
ETPH	NE	---	---	---	---	---	---	---

Notes:
SWPC = Connecticut Surface Water Protection Criteria.
--- = Constituent not analyzed for.
NA = Not applicable.
NE = Not established.
mg/L = milligrams per liter.
ug/L = micrograms per liter.
{Bold} exceeds least stringent applicable criteria.
J = Estimated value based on validation.
U = Below detection limit as determined by validator.
B = Analyte found in assoicated method blank as determined by validator.

FIGURES

OFFICE Canton, MA

DRAWING NUMBER 1009634004-01



LEGEND:

OAP–16, MDL–1, NRG–SB–1 ●	BORING LOCATIONS FROM PHASE II & SUPPLEMENTAL INVESTIGATION
TW–14 ⊕	EXISTING MONITORING WELL LOCATIONS (RCRA COMPLIANCE MONITORING)
AOC3–SB9 ◉	LOCATION OF PHASE III SOIL BORINGS
AOC7–SB–1/MW1 ◉	LOCATION OF PHASE III SOIL BORING/MONITORING WELL
MDL–13 ■	PROPOSED SOIL BORING FROM PHASE II INVESTIGATION (PHYSICAL RESTRAINTS OR UNDERGROUND UTILITY INTERFERENCE PREVENTED PLACEMENT OF BORING).
PW–1 ⊕	PRODUCTION WELL
ME–SED–03 ▲	PHASE II SEDIMENT SAMPLE LOCATION (1999)
AOC7A–HA4 ◔	SUPPLEMENTAL PHASE III HAND AUGER SOIL SAMPLE LOCATION
AOC1–SB2 ⊞	SHAW INSTALLED SOIL BORING
AOC1–MW1 ◉	SHAW INSTALLED MONITORING WELL
NRG–G ◒	MARCH 2008 SEDIMENT SAMPLE LOCATION
–×–×–×–×–×–	EXISTING CHAIN LINK FENCE
⌒⌒⌒	APPROXIMATE LIMITS OF AREA OF CONCERN

GRAPHIC SCALE
120' 0 60' 120' 240'
(IN FEET)
1 inch = 120 ft.

NOTES:

1.) "SITE PLAN–NRG MIDDLETOWN GENERATING STATION, MIDDLETOWN, CONNECTICUT", PREPARED BY NAFIS & YOUNG ENGINEERS, INC. LOCATED AT 1355 MIDDLETOWN AVENUE, NORTHFORD, CONNECTICUT. SCALE 1"=40', SHEET NO. 1, DATED NOVEMBER 13, 2003.

2.) "COMPILATION PLAN–MIDDLETOWN GENERATING STATION SEPARATION PLAN SHOWING LAND AND EASEMENT TO BE CONVEYED AND EASEMENT TO BE RESERVED MIDDLETOWN, CONNECTICUT" BY NORTHEAST UTILITIES SERVICE CO. FOR THE CONNECTICUT LIGHT AND POWER COMPANY. SCALE 1"=100', DRAWING NO. 21866 SHEET 1 AND 21866 SHEET 2. DATED 9–15–98.

3.) SEDIMENT SAMPLE LOCATION ME–SED–12 COLLECTED DURING THE PHASE II INVESTIGATION IN 1999 IS LOCATED 200 TO 300 FEET UPSTREAM OF WESTERN PROPERTY BOUNDARY.

4.) WESTERN PORTION OF SITE INCLUDES AOC2, AOC3, AOC4, AOC5, AOC6, AOC7, AOC8, AOC9A, AOC9B, AOC10A, AOC10B, AOC11, AOC13, AOC 14 AND AOC16.

5.) PRODUCTION WELL LOCATIONS FROM NORTHEAST UTILITIES SERVICE COMPANY RCRA "PART B" PLAN DATED MAY 10, 1985.

REFERENCES:

1] "AREAS OF CONCERN–EASTERN PORTION OF SITE" PREPARED BY METCALF & EDDY, DATED AUG. 2004. DWG# CZMID003A.DWG 2] "SAMPLE LOCATION PLAN–EASTERN PORTION OF SITE" PREPARED BY METCALF AND EDDY, DATED AUG. 2004. DWG# CZMID002A.DWG
2] SOIL BORING, MONITORING WELL, TOPOGRAPHIC AND WETLAND DELINEATION SURVEY BY A–PLUS CONSTRUCTION DATED MARCH 3, 2008, DWG: TOPO_SURVEY_030308

SHAW ENVIRONMENTAL, INC.
A CB&I COMPANY

DESIGNED BY:	150 ROYALL STREET CANTON, MASSACHUSETTS (617) 589-5111
DRAWN BY: CD	FIGURE 1 SITE PLAN - WESTERN NRG ENERGY, INC - MIDDLETOWN GENERATING STATION MIDDLETOWN, CONNECTICUT
CHECKED BY: AW	

APPROVED BY:	DATE:	SCALE:	DRAWING NO.	SHEET NO.
AW	02/26/13	AS SHOWN	1009634004–01	--

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VERIFY SCALE 0 1"

OFFICE Canton, MA | DRAWING NUMBER 1009634004-01

AOC NO. 13
MISC. RESIDUAL
COAL & COAL
ASH AREA

AOC NO. 15
FORMER RCRA BASIN

AOC NO. 1
FORMER ASH SETTLING BASINS/
FORMER COAL ASH DISPOSAL AREA

DEMINERALIZED WATER AST

ULSD #1 AST 1,000,000-GAL.

SAND FILTER BACKWASH BASIN

EQUALIZATION BASIN

EQUALIZATION BASIN 2A

WASTEWATER TREATMENT BUILDING

FORMER RCRA EQUALIZATION BASIN EB-2

NG TOWERS

MATCH LINE SEE FIGURE NO. 2A

PROPERTY LINE

CONNECTICUT RIVER

ESTIMATED MEAN HIGH WATER

SETTLING BASIN #1

SETTLING BASIN #2

INTERMITTENT STREAM

PENN CENTRAL RAILROAD CO.
N/F

RIVER ROAD

N/F
UNITED AIRCRAFT CORP.

N/F
UNITED AIRCRAFT CORP.
(PRATT & WHITNEY)

ME-SED-01
ME-SED-02
ME-SED-03

AOC13-SB1
AOC13-SB2
AOC13-SB3
AOC13-SB4
AOC1-SB1
AOC1-SB2
AOC1-SB3
AOC1-SB4
AOC1-SB5
AOC1-SB6
AOC1-SB7BR
AOC1-SB8
AOC1-SB5A
AOC1-MW1
AOC1-MW1R
AOC1-MW2

TW-14 TW-15 TW-16 TW-17 TW-17D TW-18 TW-19 TW-20 TW-21D TW-27D

NRG SB-1 NRG SB-2 NRG SB-3 NRG SB-4 NRG SB-5 NRG SB-6 NRG SB-7 NRG SB-8 NRG SB-9 NRG SB-10 NRG SB-11 NRG SB-12 NRG SB-13 NRG SB-14 NRG SB-15 NRG SB-16 NRG SB-17 NRG SB-18 NRG SB-19 NRG SB-20 NRG SB-21 NRG SB-22 NRG SB-23 NRG SB-24

OAP-1 OAP-2 OAP-3 OAP-4 OAP-5 OAP-6 OAP-7 OAP-8

MDL-1 MDL-2 MDL-3

P-3 P-4 PW-5

SP-1 SP-2 SP-3 SP-4 SP-5 SP-6 SP-7 SP-08 SP-09 SP-10

W1-1 W1-16 W1-32

GRAPHIC SCALE
100' 0 50' 100' 200'
(IN FEET)
1 inch = 100 ft.

LEGEND:

OAP-6, MDL-1, NRG-SB-1	BORING LOCATIONS FROM PHASE II & SUPPLEMENTAL INVESTIGATION
TW-14	EXISTING MONITORING WELL LOCATIONS (RCRA COMPLIANCE MONITORING)
AOC3-SB9	LOCATION OF PHASE III SOIL BORINGS
AOC7-SB-1/MW1	LOCATION OF PHASE III SOIL BORING/MONITORING WELL
ME-SED-03	PHASE II SEDIMENT SAMPLE LOCATION
AOC7A-HA4	SUPPLEMENTAL PHASE III HAND AUGER SOIL SAMPLE LOCATION
MDL-1/OAP-3	PROPOSED SOIL BORING FROM PHASE II INVESTIGATION (PHYSICAL RESTRAINTS OR UNDERGROUND UTILITY INFERENCE PREVENTED PLACEMENT OF BORING).
PW-5	PRODUCTION WELL
AOC1-SB2	SHAW INSTALLED SOIL BORING
AOC1-MW1R	SHAW INSTALLED MONITORING WELL
AOC1-MW1	WELL REPLACED
SP-1	WETLAND SAMPLE POINT
W1-1	WETLAND POINT
	INTERMITTENT STREAM
	EXISTING CHAIN LINK FENCE
	WETLAND DELINEATION LINE
	APPROXIMATE LIMITS OF AREA OF CONCERN

NOTES:

1.) "SITE PLAN-NRG MIDDLETOWN GENERATING STATION, MIDDLETOWN, CONNECTICUT", PREPARED BY NAFIS & YOUNG ENGINEERS, INC. LOCATED AT 1355 MIDDLETOWN AVENUE, NORTHFORD, CONNECTICUT. SCALE 1"=40', SHEET NO. 1, DATED NOVEMBER 13, 2003.

2.) "COMPILATION PLAN-MIDDLETOWN GENERATING STATION SEPARATION PLAN SHOWING LAND AND EASEMENT TO BE CONVEYED AND EASEMENT TO BE RESERVED MIDDLETOWN, CONNECTICUT" BY NORTHEAST UTILITIES SERVICE CO. FOR THE CONNECTICUT LIGHT AND POWER COMPANY. SCALE 1"=100', DRAWING NO. 21866 SHEET 1 AND 21866 SHEET 2. DATED 9-15-98.

3.) SEDIMENT SAMPLE LOCATION ME-SED-12 COLLECTED DURING THE PHASE II INVESTIGATION IN 1999 IS LOCATED 200 TO 300 FEET UPSTREAM OF WESTERN PROPERTY BOUNDARY.

4.) EASTERN PORTION OF SITE INCLUDES AOC1 AND AOC15.

5.) PRODUCTION WELL LOCATIONS FROM NORTHEAST UTILITYS SERVICE COMPANY RCRA "PART B" PLAN DATED MAY 20, 1985.

6.) MONITORING WELL AOC1-MW1R AND AOC1-MW2 LOCATIONS ARE APPROXIMATE, AND ARE NOT YET SURVEYED.

REFERENCES:
1] "AREAS OF CONCERN-EASTERN PORTION OF SITE" PREPARED BY METCALF & EDDY. DATED AUG. 2004. DWG# CZMID003A.DWG 2] "SAMPLE LOCATION PLAN-EASTERN PORTION OF SITE" PREPARED BY METCALF AND EDDY. DATED AUG. 2004. DWG# CZMID002A.DWG
2] WETLANDS DELINEATION PERFORMED BY TONY FROONJIAN, WETLAND SCIENTIST, SHAW ENVIRONMENTAL.
3] SOIL BORING, MONITORING WELL, TOPOGRAPHIC, AND WETLAND DELINEATION SURVEY BY A-PLUS CONSTRUCTION DATED MARCH 3, 2008. DWG: TOPO_SURVEY_030308
4] "STOCK PILE VOLUME PLAN" BY A-PLUS CONSTRUCTION DATED OCTOBER, 2008.

SHAW ENVIRONMENTAL, INC.
A CB&I COMPANY

150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 2
SITE PLAN - EASTERN
NRG ENERGY, INC - MIDDLETOWN GENERATING STATION
MIDDLETOWN, CONNECTICUT

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:	SCALE:	DRAWING NO.	SHEET NO.
--	CD	JM	AW	02/26/13	AS SHOWN	1009634004-01	--

VERIFY SCALE 0 1"

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ATTACHMENT 1

Data Validation Worksheet

Project Name : NRG Middletown

Job Number : 1009634022

Prepared By: Kim Napier
Date : 5/29/2013
Validated By: Kim Napier
Date : 5/29/2013
Analyte Group :
Metals
CT-ETPH
PAH

Analytical Method :
SW846 6010C
CT-ETPH 7/06 (3510C)
SW846 8270C SIM

Completed Reasonable Confidence Protocols Certification Form included: Yes

Were all Reasonable Confidence Protocol QA/QC Criteria Followed? Yes (#1B marked "N/A", #4 & #6 Marked "No",
No issues to note; no impact on the validity or usability of reported results. # 7 not checked)
Accutest laboratory certifies that all analysis were performed within method specifications and recommends that the report is to be used in its entirety: Yes

Laboratory ID No. : MC20685

Chain of Custody: Included in Data Package ? Yes Is it Complete ? Yes

Allowable Holding Times :

Method	Analysis	Collection Date	Extraction Date	Analysis Date
CT-ETPH 7/06 (3510C	CT-ETPH (C9-C36)	5/9/2013	5/16 & 05/21 /2013	5/19 & 05/24//2013
SW846 6010 C	Metals	5/9/2013		5/14/2013
SW846 8270C SIM	PAH	5/9/2013	5/16/2013	5/21/ & 05/22/2013

Sample Collection Date : 5/9/2013

Sample temperature within QC limits: Yes (2.3° C)

Surrogate Recovery

Are all % recoveries within the allowable range ? YES

If No, List sample ID where range was exceeded: NA
Note: surrogate standard was not added for the confirmation run for MC20685-6. Not an issue since original run had acceptable recoveries. Sample re-ran to confirm hit.

Laboratory Control Samples

LCS/LCSD

Are all laboratory control sample recoveries within the QC limits ? Yes
If No, list sample ID and compound where limit was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? Yes
If No, list sample ID, date and compound where limit was exceeded.

Equipment Field Blank ID : EQUIPMENT BLANK; trace amount of Naphthalene (0.078) and Zinc (6.7) detected in the ER sample
Trip Blank ID : NA
Method Blank: OP33165-MB trace amount of naphthalene (0.046J) detected

Were any compounds identified in the method blank, field blank or trip blank above detection limits ?
If so, list Sample ID/Compound/Concentration/Units
Naphthalene for MC20685-2 qualified "U" since results < 5-times the amount detected in the equipment and/or method blank
Zinc results for MC20685-3, -5, -7, and -8 qualified U since sample results < 5-times the amount found in the equipment blank

Sample Notes By Method

ETPH by CT DEP Method
Sample MC20685-6 was re-extracted outside recommended hold time to confirm hit reported in the original run.
No qualification necessary

SW846 6010C
RPD(s) for Serial Dilution for zinc is outside control limits for batch QC sample. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
No qualification necessary

SW846 8270C SIM
No issues to note

Notes
Results for metals (flagged with a "B" by the laboratory) > MDL; however < RL should be considered estimated and qualified "J" unless "U" qualified due to blank contamination. Likewise, results for PAH, flagged by the lab with a "J" should be considered estimated and qualified "J" unless "U" qualified due to blank contamination.

Sample ID correction None

Reviewed By:
Kim Napier

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC9-SB1-MW1		
Lab Sample ID:	MC20685-2	Date Sampled:	05/09/13
Matrix:	AQ - Ground Water	Date Received:	05/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83553.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

Val Q

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	0.075	0.10	0.036	ug/l	JB
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	84%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC9-SB2-MW2		
Lab Sample ID:	MC20685-3	Date Sampled:	05/09/13
Matrix:	AQ - Ground Water	Date Received:	05/09/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.3	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	20.4 U	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result >= MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC8-SB1-MW1		
Lab Sample ID:	MC20685-5	Date Sampled:	05/09/13
Matrix:	AQ - Ground Water	Date Received:	05/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83556.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

Val Q

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.36	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.060	0.10	0.046	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	ND	0.10	0.036	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	78%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC8-SB1-MW1		
Lab Sample ID:	MC20685-5	Date Sampled:	05/09/13
Matrix:	AQ - Ground Water	Date Received:	05/09/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	3.6 B U	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result >= MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	TW-18		
Lab Sample ID:	MC20685-7	Date Sampled:	05/09/13
Matrix:	AQ - Ground Water	Date Received:	05/09/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis VALQ

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	11.0	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	6.7 B U	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	TW-18(DUP)		
Lab Sample ID:	MC20685-8	Date Sampled:	05/09/13
Matrix:	AQ - Ground Water	Date Received:	05/09/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	11.8	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	10.2 B U	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

New England ACCUTEST LABORATORIES

05/29/13

Technical Report for

Shaw Environmental & Infrastructure

NRG Middletown, 1866 River Road, Middletown, CT

1009634022-02 PO#851804

Accutest Job Number: MC20685

Sampling Date: 05/09/13

Report to:

Shaw Environmental & Infrastructure
100 Technology Center Drive
Stoughton, MA 02072
andrew.walker@shawgrp.com

ATTN: Andrew Walker

Total number of pages in report: **49**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

Test results relate only to samples analyzed.

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Sample Summary

Shaw Environmental & Infrastructure

Job No: MC20685

NRG Middletown, 1866 River Road, Middletown, CT
Project No: 1009634022-02 PO#851804

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC20685-1	05/09/13	08:00	DL	05/09/13	AQ	Equipment Blank	EQUIPMENT BLANK
MC20685-2	05/09/13	09:15	DL	05/09/13	AQ	Ground Water	AOC9-SB1-MW1
MC20685-3	05/09/13	10:30	DL	05/09/13	AQ	Ground Water	AOC9-SB2-MW2
MC20685-4	05/09/13	10:30	DL	05/09/13	AQ	Ground Water	AOC9-SB2-MW2(DUP)
MC20685-5	05/09/13	12:05	DL	05/09/13	AQ	Ground Water	AOC8-SB1-MW1
MC20685-6	05/09/13	12:05	DL	05/09/13	AQ	Ground Water	AOC8-SB1-MW1(DUP)
MC20685-7	05/09/13	13:00	DL	05/09/13	AQ	Ground Water	TW-18
MC20685-8	05/09/13	13:00	DL	05/09/13	AQ	Ground Water	TW-18(DUP)
MC20685-9	05/09/13	14:00	DL	05/09/13	AQ	Ground Water	AOC5-MW1

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shaw Environmental & Infrastructure	**Job No**	MC20685
Site:	NRG Middletown, 1866 River Road, Middletown, CT	**Report Date**	5/27/2013 10:17:48 AM

9 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 05/09/2013 and were received at Accutest on 05/09/2013 properly preserved, at 2.3 Deg. C and intact. These Samples received an Accutest job number of MC20685. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ **Batch ID:** OP33165

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Only PAH Sim requested.

Extractables by GC By Method CT-ETPH 7/06

Matrix: AQ **Batch ID:** OP33173

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC20685-6 for o-Terphenyl: Surrogate standard not added.Sample results confirmed by re-extraction/reanalysis.
- MC20685-6: Confirmation run.

Matrix: AQ **Batch ID:** OP33253

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- MC20685-6: Sample re-extracted beyond recommended holding time.

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP20950

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC20798-3FSDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Zinc are outside control limits for sample MP20950-SD1. Serial Dilution RPD acceptable due to low duplicate and sample concentrations.
- Only selected metals requested.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC20685).

Summary of Hits

Job Number: MC20685
Account: Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT
Collected: 05/09/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC20685-1	**EQUIPMENT BLANK**					
Naphthalene		0.078 JB	0.10	0.036	ug/l	SW846 8270C BY SIM
Zinc		6.7 B	20	0.50	ug/l	SW846 6010C
MC20685-2	**AOC9-SB1-MW1**					
Naphthalene		0.075 JB	0.10	0.036	ug/l	SW846 8270C BY SIM
MC20685-3	**AOC9-SB2-MW2**					
CT-ETPH (C9-C36)		0.332	0.080	0.060	mg/l	CT-ETPH 7/06
Arsenic		7.3	4.0	2.9	ug/l	SW846 6010C
Zinc		20.4	20	0.50	ug/l	SW846 6010C
MC20685-4	**AOC9-SB2-MW2(DUP)**					
Acenaphthene		0.38	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.53	0.10	0.047	ug/l	SW846 8270C BY SIM
MC20685-5	**AOC8-SB1-MW1**					
Acenaphthene		0.36	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.060 J	0.10	0.046	ug/l	SW846 8270C BY SIM
CT-ETPH (C9-C36)		1.23	0.080	0.060	mg/l	CT-ETPH 7/06
Zinc		3.6 B	20	0.50	ug/l	SW846 6010C
MC20685-6	**AOC8-SB1-MW1(DUP)**					
CT-ETPH (C9-C36) [a]		1.15	0.080	0.060	mg/l	CT-ETPH 7/06
MC20685-7	**TW-18**					
Vanadium		11.0	10	2.8	ug/l	SW846 6010C
Zinc		6.7 B	20	0.50	ug/l	SW846 6010C
MC20685-8	**TW-18(DUP)**					
Vanadium		11.8	10	2.8	ug/l	SW846 6010C
Zinc		10.2 B	20	0.50	ug/l	SW846 6010C
MC20685-9	**AOC5-MW1**					
No hits reported in this sample.						

Summary of Hits

Job Number: MC20685
Account: Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT
Collected: 05/09/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

(a) Sample re-extracted beyond recommended holding time.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: MC20685-1
Matrix: AQ - Equipment Blank
Method: SW846 8270C BY SIM SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83552.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	0.078	0.10	0.036	ug/l	JB
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	83%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: MC20685-1
Matrix: AQ - Equipment Blank
Method: CT-ETPH 7/06 SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC653560.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	61%		50-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: MC20685-1
Matrix: AQ - Equipment Blank
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	6.7 B	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: AOC9-SB1-MW1
Lab Sample ID: MC20685-2
Matrix: AQ - Ground Water
Method: SW846 8270C BY SIM SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83553.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	0.075	0.10	0.036	ug/l	JB
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	84%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AOC9-SB1-MW1		
Lab Sample ID:	MC20685-2	**Date Sampled:**	05/09/13
Matrix:	AQ - Ground Water	**Date Received:**	05/09/13
Method:	CT-ETPH 7/06 SW846 3510C	**Percent Solids:**	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC653561.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342
Run #2							

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.081	0.061	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	60%		50-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AOC9-SB2-MW2
Lab Sample ID: MC20685-3
Matrix: AQ - Ground Water
Method: SW846 8270C BY SIM SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83554.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	ND	0.10	0.036	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%
1718-51-0	Terphenyl-d14	88%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AOC9-SB2-MW2
Lab Sample ID: MC20685-3
Matrix: AQ - Ground Water
Method: CT-ETPH 7/06 SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC653562.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	0.332	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	63%		50-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AOC9-SB2-MW2		
Lab Sample ID:	MC20685-3	**Date Sampled:**	05/09/13
Matrix:	AQ - Ground Water	**Date Received:**	05/09/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	7.3	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	20.4	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: AOC9-SB2-MW2(DUP)
Lab Sample ID: MC20685-4
Matrix: AQ - Ground Water
Method: SW846 8270C BY SIM SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83555.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.38	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.074	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.53	0.10	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.053	ug/l	
91-20-3	Naphthalene	ND	0.10	0.037	ug/l	
85-01-8	Phenanthrene	ND	0.051	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	78%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AOC8-SB1-MW1		
Lab Sample ID:	MC20685-5	**Date Sampled:**	05/09/13
Matrix:	AQ - Ground Water	**Date Received:**	05/09/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83556.D	1	05/21/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.36	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.060	0.10	0.046	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	ND	0.10	0.036	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	78%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AOC8-SB1-MW1
Lab Sample ID: MC20685-5
Matrix: AQ - Ground Water
Method: CT-ETPH 7/06 SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC653563.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	1.23	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		50-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AOC8-SB1-MW1
Lab Sample ID: MC20685-5
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	3.6 B	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	AOC8-SB1-MW1(DUP)		
Lab Sample ID:	MC20685-6	**Date Sampled:**	05/09/13
Matrix:	AQ - Ground Water	**Date Received:**	05/09/13
Method:	CT-ETPH 7/06 SW846 3510C	**Percent Solids:**	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	BC653725.D	1	05/24/13	KN	05/21/13	OP33253	GBC3346
Run #2 [b]	BC653564.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2	1000 ml	1.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	1.15	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	53%	0% [c]	50-149%

(a) Sample re-extracted beyond recommended holding time.
(b) Confirmation run.
(c) Surrogate standard not added. Sample results confirmed by re-extraction/reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TW-18
Lab Sample ID: MC20685-7
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	11.0	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	6.7 B	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: TW-18(DUP)
Lab Sample ID: MC20685-8
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	11.8	10	2.8	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	10.2 B	20	0.50	ug/l	1	05/14/13	05/14/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15592
(2) Prep QC Batch: MP20950

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	AOC5-MW1		
Lab Sample ID:	MC20685-9	**Date Sampled:**	05/09/13
Matrix:	AQ - Ground Water	**Date Received:**	05/09/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83557.D	1	05/22/13	NS	05/16/13	OP33165	MSI3104
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	ND	0.10	0.036	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%
1718-51-0	Terphenyl-d14	66%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: AOC5-MW1
Lab Sample ID: MC20685-9
Matrix: AQ - Ground Water
Method: CT-ETPH 7/06 SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/09/13
Date Received: 05/09/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC653565.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		50-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest Job #: MC20685

Client / Reporting Information

Company Name: A CB&I Company, Shaw Environmental, Inc.
Street Address: 150 Royall Street
City: Canton, State: MA, Zip: 02021
Project Contact: Andrew Walker 617-589-6143
E-mail: andrew.walker@cbi.com
Phone #:
Fax #:
Sampler(s) Name(s): Daniel Leahy, Phone #: 617-212-8276

Project Information

Project Name: NRG Middletown
Street: River Road
City: Middletown, CT
Project#: 1009634022-02
Client PO#: 851804 NRG ACCT PRICING
Project Manager: Andrew Walker

Billing Information (If different from Report to)

Company Name: A CB&I Company, Shaw Environmental, Inc.
Street Address:
City / State / Zip: Scan & email invoice to:
Attention: ap.invoices@CBI.com
PO#:

Requested Analysis (see TEST CODE sheet)

Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Water, SW - Surface Water, SO - Soil, SL - Sludge, SED - Sediment, OI - Oil, LIQ - Other Liquid, AIR - Air, SOL - Other Solid, WP - Wipe, FB - Field Blank, EB - Equipment Blank, RB - Rinse Blank, TB - Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	EPA 6010C - Total metals (As, Pb, Se, V, Zn)	EPA 8270 SIM (PAH + 2-Methylnaphthalene)	ETPH by CT DEP Method	LAB USE ONLY
-1	EQUIPMENT BLANK		5/9/13	0800	DL	GW	5			1		4					1	2	2	
-2	AOC9-SB1-MW1		5/9/13	0915	↓	GW	4					4						2	2	
-3	AOC9-SB2-MW2		5/9/13	1030	↓	↓	5			1		4					1	2	2	
-4	AOC9-SB2-MW2(DUP)		5/9/13	1030	↓	↓	2					2						2		
-5	AOC8-SB1-MW1		5/9/13	1205	↓	↓	5			1		4					1	2	2	
-6	AOC8-SB1-MW1 (DUP)		5/9/13	1205	↓	↓	2					2							2	
-7	TW-18		5/9/13	1300	↓	↓	1										1			
-8	TW-18 (DUP)		5/9/13	1300	↓	↓	1										1			
-9	AOC5-MW1		5/9/13	1400	↓	↓	4					4						2	2	
																				19C,6C

Turnaround Time (Business days)

- [x] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [x] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [x] EDD Format GISKey
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

QA/QC Reporting Level: CTDEP RCP
Email GISKey EDD & PDF of report to: Catherine.Mainville@CBI.com.
Detection limits must meet CT SWPC standards, report metals to MDL.
Refer to SiteSpecific QAPP.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Daniel Leahy	5/9/13 1430	1 B. [illegible]	2 B[illegible]	5-9-13 2000	2 B[illegible]
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Intact / Not intact; Preserved where applicable	On Ice; Cooler Temp. 2.3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC20685 **Client:** SHAW **Immediate Client Services Action Required:** No

Date / Time Received: 5/9/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: NRG MIDDLETOWN **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	☑
2. Trip Blank listed on COC:	☐	☐	☑
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

MC20685: Chain of Custody
Page 2 of 2

Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form

Laboratory Name: **Accutest New England** **Client:** **Shaw Environmental & Infrastructure**

Project Location: **NRG Middletown, 1866 River Road, Middletown, CT** **Project Number:** **1009634022-02**

Sampling Date(s): **5/9/2013**

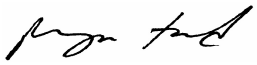
Laboratory Sample ID(s): MC20685-1, MC20685-2, MC20685-3, MC20685-4, MC20685-5, MC20685-6, MC20685-7, MC20685-8, MC20685-9

Methods: CT-ETPH 7/06, SW846 6010C, SW846 8270C BY SIM

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes ☑ No ☐
1A	Where all the method specified preservation and holding time requirements met?	Yes ☑ No ☐
1B	VPH and EPH mehods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes ☐ No ☐ NA ☑
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes ☑ No ☐
3	Were samples received at an appropriate temperature (<6° C)?	Yes ☑ No ☐
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes ☐ No ☑
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes ☑ No ☐
	b) Were these reporting limits met?	Yes ☑ No ☐
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes ☐ No ☑
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes ☐ No ☐

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  Position: Lab Director

Printed Name: Reza Tand, Accutest New England Date: 5/27/2013

Internal Sample Tracking Chronicle

Shaw Environmental & Infrastructure

Job No: MC20685

NRG Middletown, 1866 River Road, Middletown, CT
Project No: 1009634022-02 PO#851804

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC20685-1 Collected: 09-MAY-13 08:00 By: DL Received: 09-MAY-13 By: EQUIPMENT BLANK						
MC20685-1	SW846 6010C	14-MAY-13 19:03	EAL	14-MAY-13	DA	AS,PB,SE,V,ZN
MC20685-1	CT-ETPH 7/06	19-MAY-13 16:13	AP	16-MAY-13	AJ	BCTTPH
MC20685-1	SW846 8270C BY SIM	21-MAY-13 22:21	NS	16-MAY-13	MT	B8270SIMPAH
MC20685-2 Collected: 09-MAY-13 09:15 By: DL Received: 09-MAY-13 By: AOC9-SB1-MW1						
MC20685-2	CT-ETPH 7/06	19-MAY-13 16:44	AP	16-MAY-13	AJ	BCTTPH
MC20685-2	SW846 8270C BY SIM	21-MAY-13 22:45	NS	16-MAY-13	MT	B8270SIMPAH
MC20685-3 Collected: 09-MAY-13 10:30 By: DL Received: 09-MAY-13 By: AOC9-SB2-MW2						
MC20685-3	SW846 6010C	14-MAY-13 17:39	EAL	14-MAY-13	DA	AS,PB,SE,V,ZN
MC20685-3	CT-ETPH 7/06	19-MAY-13 17:16	AP	16-MAY-13	AJ	BCTTPH
MC20685-3	SW846 8270C BY SIM	21-MAY-13 23:09	NS	16-MAY-13	MT	B8270SIMPAH
MC20685-4 Collected: 09-MAY-13 10:30 By: DL Received: 09-MAY-13 By: AOC9-SB2-MW2(DUP)						
MC20685-4	SW846 8270C BY SIM	21-MAY-13 23:33	NS	16-MAY-13	MT	B8270SIMPAH
MC20685-5 Collected: 09-MAY-13 12:05 By: DL Received: 09-MAY-13 By: AOC8-SB1-MW1						
MC20685-5	SW846 6010C	14-MAY-13 17:44	EAL	14-MAY-13	DA	AS,PB,SE,V,ZN
MC20685-5	CT-ETPH 7/06	19-MAY-13 17:48	AP	16-MAY-13	AJ	BCTTPH
MC20685-5	SW846 8270C BY SIM	21-MAY-13 23:57	NS	16-MAY-13	MT	B8270SIMPAH
MC20685-6 Collected: 09-MAY-13 12:05 By: DL Received: 09-MAY-13 By: AOC8-SB1-MW1(DUP)						
MC20685-6	CT-ETPH 7/06	19-MAY-13 18:20	AP	16-MAY-13		
MC20685-6	CT-ETPH 7/06	24-MAY-13 13:44	KN	21-MAY-13	FC	BCTTPH

Internal Sample Tracking Chronicle

Shaw Environmental & Infrastructure

Job No: MC20685

NRG Middletown, 1866 River Road, Middletown, CT
Project No: 1009634022-02 PO#851804

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC20685-7	Collected: 09-MAY-13 13:00 By: DL TW-18			Received: 09-MAY-13	By:	
MC20685-7	SW846 6010C	14-MAY-13 17:49	EAL	14-MAY-13	DA	AS,PB,SE,V,ZN
MC20685-8	Collected: 09-MAY-13 13:00 By: DL TW-18(DUP)			Received: 09-MAY-13	By:	
MC20685-8	SW846 6010C	14-MAY-13 17:54	EAL	14-MAY-13	DA	AS,PB,SE,V,ZN
MC20685-9	Collected: 09-MAY-13 14:00 By: DL AOC5-MW1			Received: 09-MAY-13	By:	
MC20685-9	CT-ETPH 7/06	19-MAY-13 18:52	AP	16-MAY-13	AJ	BCTTPH
MC20685-9	SW846 8270C BY SIM	22-MAY-13 00:21	NS	16-MAY-13	MT	B8270SIMPAH

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33165-MB	I83465.D	1	05/20/13	KR	05/16/13	OP33165	MSI3101

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

MC20685-1, MC20685-2, MC20685-3, MC20685-4, MC20685-5, MC20685-9

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
91-20-3	Naphthalene	0.046	0.10	0.036	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	80%	30-130%
1718-51-0	Terphenyl-d14	93%	30-130%

Blank Spike Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33165-BS	I83466.D	1	05/20/13	KR	05/16/13	OP33165	MSI3101

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

MC20685-1, MC20685-2, MC20685-3, MC20685-4, MC20685-5, MC20685-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	40.2	80	40-140
208-96-8	Acenaphthylene	50	29.7	59	40-140
120-12-7	Anthracene	50	41.8	84	40-140
56-55-3	Benzo(a)anthracene	50	46.1	92	40-140
50-32-8	Benzo(a)pyrene	50	39.7	79	40-140
205-99-2	Benzo(b)fluoranthene	50	44.8	90	40-140
191-24-2	Benzo(g,h,i)perylene	50	42.5	85	40-140
207-08-9	Benzo(k)fluoranthene	50	43.3	87	40-140
218-01-9	Chrysene	50	43.8	88	40-140
53-70-3	Dibenzo(a,h)anthracene	50	44.2	88	40-140
206-44-0	Fluoranthene	50	46.0	92	40-140
86-73-7	Fluorene	50	43.7	87	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.5	87	40-140
91-57-6	2-Methylnaphthalene	50	46.6	93	40-140
91-20-3	Naphthalene	50	31.7	63	40-140
85-01-8	Phenanthrene	50	43.5	87	40-140
129-00-0	Pyrene	50	43.7	87	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	73%	30-130%
1718-51-0	Terphenyl-d14	85%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Check Std: MSI3101-CC3096 **Injection Date:** 05/20/13
Lab File ID: I83459.D **Injection Time:** 08:19
Instrument ID: GCMSI **Method:** SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	118719	3.30	301945	4.26	167519	5.65	293707	6.88	236917	9.59	455875	10.99
Upper Limit [a]	237438	3.80	603890	4.76	335038	6.15	587414	7.38	473834	10.09	911750	11.49
Lower Limit [b]	59360	2.80	150973	3.76	83760	5.15	146854	6.38	118459	9.09	227938	10.49

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP33176-MB	99921	3.30	256129	4.26	142827	5.65	246438	6.88	203729	9.59	387805	10.98
OP33176-BS	109927	3.30	284252	4.26	157637	5.65	269184	6.88	222866	9.60	425328	10.99
OP33101-MB	105991	3.30	271098	4.26	151619	5.65	258779	6.88	218826	9.59	416560	10.98
OP33101-BS	104499	3.30	271801	4.26	150539	5.65	261132	6.88	212577	9.60	412424	10.99
ZZZZZZ	110995	3.30	280013	4.26	152948	5.65	261009	6.88	217390	9.59	419785	10.98
OP33165-MB	104555	3.30	272085	4.26	150514	5.65	259831	6.88	219742	9.59	422761	10.98
OP33165-BS	109961	3.30	284892	4.26	156913	5.65	269907	6.88	219917	9.60	419613	10.99
OP33165-MS	108644	3.30	280392	4.26	156577	5.65	270267	6.88	219148	9.60	424629	10.98
OP33165-MSD	112136	3.30	290395	4.26	161223	5.65	280012	6.88	225086	9.60	430945	10.99
MC20900-14	106274	3.30	274017	4.26	150085	5.65	255929	6.88	214035	9.59	409979	10.98
ZZZZZZ	110593	3.30	286781	4.26	155862	5.65	266243	6.88	222699	9.59	430493	10.99
ZZZZZZ	108294	3.30	282210	4.26	153494	5.65	266118	6.88	216385	9.59	417736	10.98
ZZZZZZ	102812	3.30	262636	4.26	144422	5.65	252323	6.88	208476	9.59	398120	10.98
ZZZZZZ	111233	3.30	285544	4.26	157549	5.65	269683	6.88	224194	9.59	428825	10.98
ZZZZZZ	112696	3.30	293781	4.26	161393	5.65	273397	6.88	232597	9.59	454584	10.98
ZZZZZZ	103161	3.30	267761	4.26	147225	5.65	250021	6.88	208609	9.59	401421	10.98
ZZZZZZ	104389	3.30	268100	4.26	145237	5.65	247624	6.88	205832	9.59	390171	10.98
ZZZZZZ	117649	3.30	311391	4.26	169807	5.65	290660	6.88	237063	9.59	457822	10.98

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Check Std: MSI3104-CC3096 **Injection Date:** 05/21/13
Lab File ID: I83534.D **Injection Time:** 15:21
Instrument ID: GCMSI **Method:** SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	121767	3.29	317986	4.25	174010	5.64	307129	6.87	244300	9.59	475098	10.98
Upper Limit [a]	243534	3.79	635972	4.75	348020	6.14	614258	7.37	488600	10.09	950196	11.48
Lower Limit [b]	60884	2.79	158993	3.75	87005	5.14	153565	6.37	122150	9.09	237549	10.48

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP33170-MB	132940	3.29	343020	4.25	186894	5.64	319113	6.87	253565	9.58	475751	10.98
OP33170-BS	131842	3.29	349664	4.26	187607	5.64	320384	6.87	242602	9.59	447876	10.98
OP33170-MS	127800	3.29	335655	4.26	184354	5.64	316268	6.87	242365	9.59	451232	10.98
OP33170-MSD	134197	3.29	345575	4.25	188123	5.65	323465	6.87	235670	9.59	433641	10.98
MC20732-1	121060	3.29	319128	4.25	173953	5.64	292361	6.86	233561	9.58	428060	10.97
ZZZZZZ	129978	3.29	340289	4.25	186960	5.64	315332	6.87	248201	9.58	447341	10.98
ZZZZZZ	122063	3.29	322132	4.25	174675	5.64	292418	6.87	227631	9.59	417726	10.98
ZZZZZZ	126544	3.29	330434	4.25	180875	5.64	307167	6.87	235524	9.59	430389	10.98
ZZZZZZ	124734	3.29	326027	4.25	178335	5.64	301288	6.86	233089	9.58	421758	10.98
ZZZZZZ	116494	3.29	308200	4.25	168652	5.64	288203	6.87	222241	9.59	407214	10.97
ZZZZZZ	120664	3.29	318010	4.25	173539	5.64	293586	6.87	223682	9.59	402924	10.98
ZZZZZZ	115589	3.29	304551	4.25	164882	5.64	280239	6.87	215097	9.59	389390	10.98
ZZZZZZ	111113	3.29	292404	4.25	160631	5.64	274310	6.86	210784	9.58	387386	10.98
ZZZZZZ	112820	3.29	299889	4.25	165627	5.64	279630	6.87	227401	9.59	429112	10.98
ZZZZZZ	101853	3.29	273181	4.25	151973	5.64	262914	6.87	218686	9.59	411853	10.98
ZZZZZZ	109312	3.29	287871	4.25	159518	5.64	272901	6.87	222670	9.59	414143	10.97
ZZZZZZ	101130	3.29	270177	4.25	147532	5.64	256996	6.87	211597	9.59	409681	10.97
MC20685-1	114753	3.29	302225	4.25	164849	5.64	279879	6.87	225754	9.59	418969	10.98
MC20685-2	111795	3.29	297363	4.25	165404	5.64	282919	6.87	232101	9.59	433938	10.98
MC20685-3	109791	3.29	294555	4.25	161434	5.64	280850	6.87	225709	9.59	423309	10.98
MC20685-4	113200	3.29	297253	4.25	163514	5.64	279775	6.87	227384	9.59	425029	10.98
MC20685-5	100171	3.29	264676	4.25	146461	5.64	252765	6.87	210255	9.59	391113	10.98
MC20685-9	108911	3.29	287649	4.25	159371	5.64	274161	6.87	223151	9.58	410869	10.98
ZZZZZZ	112357	3.29	297721	4.25	163928	5.64	281660	6.87	233500	9.59	439323	10.98
ZZZZZZ	115512	3.29	302172	4.26	170908	5.67	308305	6.91	264061	9.60	453643	10.98

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Method: SW846 8270C BY SIM **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC20685-1	I83552.D	64.0	66.0	83.0
MC20685-2	I83553.D	76.0	75.0	84.0
MC20685-3	I83554.D	79.0	78.0	88.0
MC20685-4	I83555.D	80.0	78.0	79.0
MC20685-5	I83556.D	76.0	74.0	78.0
MC20685-9	I83557.D	68.0	67.0	66.0
OP33165-BS	I83466.D	77.0	73.0	85.0
OP33165-MB	I83465.D	80.0	80.0	93.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33173-MB	BC653551.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342

The QC reported here applies to the following samples: **Method:** CT-ETPH 7/06

MC20685-1, MC20685-2, MC20685-3, MC20685-5, MC20685-9

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	67%	50-149%

Method Blank Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33253-MB	BC653721.D	1	05/24/13	KN	05/21/13	OP33253	GBC3346

The QC reported here applies to the following samples: **Method:** CT-ETPH 7/06

MC20685-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	50%	50-149%

Blank Spike Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33173-BS	BC653552.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342

The QC reported here applies to the following samples: **Method:** CT-ETPH 7/06

MC20685-1, MC20685-2, MC20685-3, MC20685-5, MC20685-9

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-ETPH (C9-C36)	0.7	0.524	75	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	62%	50-149%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33253-BS	BC653723.D	1	05/24/13	KN	05/21/13	OP33253	GBC3346

The QC reported here applies to the following samples: **Method:** CT-ETPH 7/06

MC20685-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-ETPH (C9-C36)	0.7	0.446	64	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	62%	50-149%

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC20685
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Method: CT-ETPH 7/06 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
MC20685-1	BC653560.D	61.0
MC20685-2	BC653561.D	60.0
MC20685-3	BC653562.D	63.0
MC20685-5	BC653563.D	66.0
MC20685-6	BC653725.D	53.0
MC20685-6	BC653564.D	0.0* [b]
MC20685-9	BC653565.D	62.0
OP33173-BS	BC653552.D	62.0
OP33173-MB	BC653551.D	67.0
OP33253-BS	BC653723.D	62.0
OP33253-MB	BC653721.D	50.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	50-149%

(a) Recovery from GC signal #1
(b) Surrogate standard not added. Sample results confirmed by re-extraction/reanalysis.

New England ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC20685
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20950
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	17	40		
Antimony	6.0	1.2	1.9		
Arsenic	4.0	1.1	2.9	-0.20	<4.0
Barium	50	.43	.81		
Beryllium	4.0	.17	.25		
Boron	100	.47	1.4		
Cadmium	4.0	.14	.5		
Calcium	5000	15	38		
Chromium	10	.5	1.4		
Cobalt	50	.15	.4		
Copper	25	.79	7		
Gold	50	2.3	5		
Iron	100	4	20		
Lead	5.0	.76	1.7	1.3	<5.0
Magnesium	5000	53	59		
Manganese	15	.16	.81		
Molybdenum	100	.25	.77		
Nickel	40	.15	.57		
Palladium	50	2.3	7.6		
Platinum	50	5.2	14		
Potassium	5000	64	160		
Selenium	10	1.7	4.8	0.70	<10
Silicon	100	1.7	45		
Silver	5.0	.62	1		
Sodium	5000	23	60		
Strontium	10	.2	.26		
Thallium	5.0	.67	1.9		
Tin	100	.23	1.4		
Titanium	50	1.9	1.8		
Tungsten	100	7.3	16		
Vanadium	10	.95	2.8	0.30	<10
Zinc	20	.13	.5	0.50	<20
Zirconium	50	2.3	2.2		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC20685
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20950 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date:

Metal

Associated samples MP20950: MC20685-1, MC20685-3, MC20685-5, MC20685-7, MC20685-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC20685
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20950
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			05/14/13					05/14/13	
Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic	538	500	107.6	80-120	559	500	111.8	3.8	20
Barium	anr								
Beryllium									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	1010	1000	101.0	80-120	1030	1000	103.0	2.0	20
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium	510	500	102.0	80-120	527	500	105.4	3.3	20
Silicon									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium	521	500	104.2	80-120	533	500	106.6	2.3	20
Zinc	535	500	107.0	80-120	547	500	109.4	2.2	20
Zirconium									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC20685
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20950
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20950: MC20685-1, MC20685-3, MC20685-5, MC20685-7, MC20685-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC20685
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20950
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/14/13

Metal	MC20798-3F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	0.00	3.90	NC	0-10
Magnesium				
Manganese	anr			
Molybdenum				
Nickel				
Palladium				
Platinum				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium	0.00	0.00	NC	0-10
Zinc	13.5	15.5	14.8 (a)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC20685
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20950
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20950: MC20685-1, MC20685-3, MC20685-5, MC20685-7, MC20685-8

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial Dilution RPD acceptable due to low duplicate and sample concentrations.

Data Validation Worksheet

Project Name : NRG Middletown

Job Number : 1009634022

Prepared By: Kim Napier
Date : 5/28/2013
Validated By: Kim Napier
Date : 5/28/2013
Analyte Group :
Metals
CT-ETPH
Analytical Method :
SW846 6010C
CT-ETPH 7/06 (3510C)

Completed Reasonable Confidence Protocols Certification Form included: Yes

Were all Reasonable Confidence Protocol QA/QC Criteria Followed? Yes (#1B marked "N/A", #6 & #7 Marked "No")
No issues to note; no impact on the validity or usability of reported results.
Accutest laboratory certifies that all analysis were performed within method specifications and recommends that the report is to be used in its entirety: Yes

Laboratory ID No. : MC20806

Chain of Custody: Included in Data Package ? Yes

Is it Complete ? Yes

Allowable Holding Times :

Method	Analysis	Collection Date	Extraction Date	Analysis Date
CT-ETPH 7/06 (3510C	CT-ETPH (C9-C36)	5/10/2013	5/16/2013	5/19/2013
SW846 6010 C	Metals	5/10/2013		5/20/2013

Sample Collection Date : 5/10/2013

Sample temperature within QC limits: Yes (0.8° C)

Surrogate Recovery

Are all % recoveries within the allowable range ? YES
If No, List sample ID where range was exceeded: NA

Laboratory Control Samples

LCS/LCSD

Are all laboratory control sample recoveries within the QC limits ? Yes
If No, list sample ID and compound where limit was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? Yes
If No, list sample ID, date and compound where limit was exceeded.
Project sample AOC-MW1R was used for the MS/MSD analysis for metals and all QC criteria were met.

Equipment Field Blank ID : NA
Trip Blank ID : NA
Method Blank:

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No
If so, list Sample ID/Compound/Concentration/Units: None

Sample Notes By Method

ETPH by CT DEP Method
No issues to note

SW846 6010C
RPD(s) for Serial Dilution for selenium and zinc are outside control limits for sample AOC-MW1R. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
No qualification necessary

Notes
Results for metals (flagged with a "B" by the laboratory) > MDL; however < RL should be considered estimated and qualified "J".

Sample ID correction None

Reviewed By:
Kim Napier

Accutest Laboratories

Report of Analysis

Client Sample ID:	TW-10		
Lab Sample ID:	MC20806-2	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	4.3 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	TW-17D		
Lab Sample ID:	MC20806-3	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis ValQ

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	29.7	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	408	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	11.7 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC1-MW2		
Lab Sample ID:	MC20806-4	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.2	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	5.9 B J	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	7.5 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC1-MW1R		
Lab Sample ID:	MC20806-5	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	10.0	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	5.5 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	TW-21D		
Lab Sample ID:	MC20806-6	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	26.0	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	17.3	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	9.1 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	AOC2-SB1-MW1		
Lab Sample ID:	MC20806-7	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis Val Q

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	3.2 B J	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	7.4 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Accutest Laboratories

Report of Analysis

Client Sample ID:	TW-14		
Lab Sample ID:	MC20806-1	Date Sampled:	05/10/13
Matrix:	AQ - Ground Water	Date Received:	05/13/13
		Percent Solids:	n/a
Project:	NRG Middletown, 1866 River Road, Middletown, CT		

Total Metals Analysis √alQ

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	16.7 B J	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result >= MDL but < RL

New England ACCUTEST LABORATORIES

05/28/13

Technical Report for

Shaw Environmental & Infrastructure

NRG Middletown, 1866 River Road, Middletown, CT

1009634022-02

Accutest Job Number: MC20806

Sampling Date: 05/10/13

Report to:

Shaw Environmental & Infrastructure
100 Technology Center Drive
Stoughton, MA 02072
andrew.walker@shawgrp.com

ATTN: Andrew Walker

Total number of pages in report: **34**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Reza Tand
Lab Director

Client Service contact: Frank DAgostino 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7

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Sample Summary

Shaw Environmental & Infrastructure

Job No: MC20806

NRG Middletown, 1866 River Road, Middletown, CT
Project No: 1009634022-02

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC20806-1	05/10/13	08:40	DL	05/13/13	AQ	Ground Water	TW-14
MC20806-2	05/10/13	09:45	DL	05/13/13	AQ	Ground Water	TW-10
MC20806-3	05/10/13	10:50	DL	05/13/13	AQ	Ground Water	TW-17D
MC20806-4	05/10/13	11:45	DL	05/13/13	AQ	Ground Water	AOC1-MW2
MC20806-5	05/10/13	12:35	DL	05/13/13	AQ	Ground Water	AOC1-MW1R
MC20806-6	05/10/13	13:35	DL	05/13/13	AQ	Ground Water	TW-21D
MC20806-7	05/10/13	14:30	DL	05/13/13	AQ	Ground Water	AOC2-SB1-MW1

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shaw Environmental & Infrastructure	**Job No**	MC20806
Site:	NRG Middletown, 1866 River Road, Middletown, CT	**Report Date**	5/27/2013 11:14:28 AM

7 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 05/10/2013 and were received at Accutest on 05/13/2013 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of MC20806. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Extractables by GC By Method CT-ETPH 7/06

Matrix: AQ **Batch ID:** OP33173

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP20980

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC20806-5MS, MC20806-5MSD, MC20806-5SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Selenium, Zinc are outside control limits for sample MP20980-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC20806).

Summary of Hits

Job Number: MC20806
Account: Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT
Collected: 05/10/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC20806-1	**TW-14**					
Zinc		16.7 B	20	0.50	ug/l	SW846 6010C
MC20806-2	**TW-10**					
Zinc		4.3 B	20	0.50	ug/l	SW846 6010C
MC20806-3	**TW-17D**					
Selenium		29.7	10	4.8	ug/l	SW846 6010C
Vanadium		408	10	2.8	ug/l	SW846 6010C
Zinc		11.7 B	20	0.50	ug/l	SW846 6010C
MC20806-4	**AOC1-MW2**					
Arsenic		6.2	4.0	2.9	ug/l	SW846 6010C
Vanadium		5.9 B	10	2.8	ug/l	SW846 6010C
Zinc		7.5 B	20	0.50	ug/l	SW846 6010C
MC20806-5	**AOC1-MW1R**					
Selenium		10.0	10	4.8	ug/l	SW846 6010C
Zinc		5.5 B	20	0.50	ug/l	SW846 6010C
MC20806-6	**TW-21D**					
Selenium		26.0	10	4.8	ug/l	SW846 6010C
Vanadium		17.3	10	2.8	ug/l	SW846 6010C
Zinc		9.1 B	20	0.50	ug/l	SW846 6010C
MC20806-7	**AOC2-SB1-MW1**					
Vanadium		3.2 B	10	2.8	ug/l	SW846 6010C
Zinc		7.4 B	20	0.50	ug/l	SW846 6010C

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: TW-14
Lab Sample ID: MC20806-1
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	16.7 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: TW-10
Lab Sample ID: MC20806-2
Matrix: AQ - Ground Water
Method: CT-ETPH 7/06 SW846 3510C
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC653571.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	50%		50-149%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TW-10
Lab Sample ID: MC20806-2
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	4.3 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: TW-17D
Lab Sample ID: MC20806-3
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	29.7	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	408	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	11.7 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: AOC1-MW2
Lab Sample ID: MC20806-4
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	6.2	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	5.9 B	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	7.5 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: AOC1-MW1R
Lab Sample ID: MC20806-5
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	10.0	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	2.8 U	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	5.5 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: TW-21D
Lab Sample ID: MC20806-6
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	26.0	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	17.3	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	9.1 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: AOC2-SB1-MW1
Lab Sample ID: MC20806-7
Matrix: AQ - Ground Water
Project: NRG Middletown, 1866 River Road, Middletown, CT

Date Sampled: 05/10/13
Date Received: 05/13/13
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	2.9 U	4.0	2.9	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Lead	1.7 U	5.0	1.7	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Selenium	4.8 U	10	4.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Vanadium	3.2 B	10	2.8	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]
Zinc	7.4 B	20	0.50	ug/l	1	05/16/13	05/20/13	EAL	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA15623
(2) Prep QC Batch: MP20980

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

Accutest Laboratories of New England
495 Technology Center West, Building One
TEL. 508-481-6200 FAX: 508-481-7753
www.accutest.com

PAGE 1 OF 1

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: MC20806

Client / Reporting Information

Company Name: A CB&I Company
Shaw Environmental, Inc.
Street Address: 150 Royall Street
City State Zip: Canton, MA 02021
Project Contact E-mail: Andrew Walker 617-589-6143
Phone # Fax #: andrew.walker@cbi.com
Sampler(s) Name(s) Phone #: Daniel Leahy 617-212-8276

Project Information

Project Name: NRG Middletown
Street: River Road
City: Middletown, CT
Project#: 1009634022-02
Client PO#: 851804 NRG ACCT PRICING
Project Manager: Andrew Walker

Billing Information (If different from Report to)

Company Name: A CB&I Company
Shaw Environmental, Inc.
Street Address:
City State Zip: Email invoice to:
Attention: ap.invoices@cbi.com PO#

Requested Analysis (see TEST CODE sheet)

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	Bisulfate	EDA 6010C - Total Metals (As, Pb, Se, V, Zn)	EPA 8270 SIM (PAH + 2-Methylnaphthalene)	ETPH by CT DEP Method								Matrix Codes / LAB USE ONLY
-1	TW-14		5/10/13	0840	DL	GW	1			1							1										
-2	TW-10		5/10/13	0945			3			1		2					1		2								
-3	TW-17D		5/10/13	1050			1			1							1										
-4	AOC1-MW2		5/10/13	1145			1			1							1										
-5	AOC1-MW1R		5/10/13	1235			1			1							1										
-6	TW-21D		5/10/13	1335			1			1							1										
-7	AOC2-SB1-MW1		5/10/13	1430			1			1							1										
																											6E, 19A

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; SED-Sediment; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe; FB-Field Blank; EB- Equipment Blank; RB- Rinse Blank; TB-Trip Blank

Turnaround Time (Business days)

Approved By (Accutest PM): / Date:

- [X] Std. 10 Business Days
- [ ] Std. 5 Business Days (By Contract only)
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [X] CT RCP
- [ ] MA MCP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] EDD Format GISKey
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary

Comments / Special Instructions

QA/QC Reporting Level: CTDEP RCP
Detection limits must meet CT SWPC standards. Report metals to MDL.
Refer to site specific QAPP.
Email GISKey formatted EDD & PDF to: Catherine.Mainville@CBI.com.

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/11/13 1200	1 V. Sasso	2 V. Sasso	5/13/13	2
3		5/13/13 930	3	4		4
5			5			

Custody Seal #: | Intact / Not Intact | Preserved where applicable | On Ice | Cooler Temp: 0.8

5.1 5

MC20806: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC20806 **Client:** SHAW **Immediate Client Services Action Required:** No

Date / Time Received: 5/13/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: NRG MIDDLETOWN **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	Infared gun	
3. Cooler media:	Ice (bag)	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	☑
2. Trip Blank listed on COC:	☐	☐	☑
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:508.481.6200

495 Technology Center West, Bldg One
F: 508.481.7753

Marlborough, MA
www/accutest.com

MC20806: Chain of Custody
Page 2 of 2

Reasonable Confidence Protocol
Laboratory Analysis
QA/QC Certification Form

Laboratory Name: **Accutest New England** **Client:** **Shaw Environmental & Infrastructure**

Project Location: **NRG Middletown, 1866 River Road, Middletown, CT** **Project Number:** **1009634022-02**

Sampling Date(s): **5/10/2013**

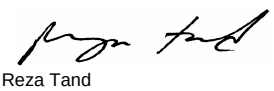
Laboratory Sample ID(s): MC20806-1, MC20806-2, MC20806-3, MC20806-4, MC20806-5, MC20806-6, MC20806-7

Methods: CT-ETPH 7/06, SW846 6010C

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents)?	Yes ☑ No ☐
1A	Where all the method specified preservation and holding time requirements met?	Yes ☑ No ☐
1B	VPH and EPH mehods only: Was the VPH or EPH method conducted without significant modifications (See section 11.3 of respective methods)	Yes ☐ No ☐ NA ☑
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	Yes ☑ No ☐
3	Were samples received at an appropriate temperature (<6° C)?	Yes ☑ No ☐
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	Yes ☑ No ☐
5	a) Were reporting limits specified or referenced on the chain-of-custody?	Yes ☑ No ☐
	b) Were these reporting limits met?	Yes ☑ No ☐
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	Yes ☐ No ☑
7	Are project-specific matrix spikes and laboratory duplicates included in this data set?	Yes ☐ No ☑

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: 

Position: Lab Director

Printed Name: Reza Tand
Accutest New England

Date: 5/27/2013

Internal Sample Tracking Chronicle

Shaw Environmental & Infrastructure

Job No: MC20806

NRG Middletown, 1866 River Road, Middletown, CT
Project No: 1009634022-02

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC20806-1	Collected: 10-MAY-13 08:40 By: DL TW-14			Received: 13-MAY-13	By:	
MC20806-1	SW846 6010C	20-MAY-13 12:58	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN
MC20806-2	Collected: 10-MAY-13 09:45 By: DL TW-10			Received: 13-MAY-13	By:	
MC20806-2	CT-ETPH 7/06	19-MAY-13 22:05	AP	16-MAY-13	AJ	BCTTPH
MC20806-2	SW846 6010C	20-MAY-13 13:03	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN
MC20806-3	Collected: 10-MAY-13 10:50 By: DL TW-17D			Received: 13-MAY-13	By:	
MC20806-3	SW846 6010C	20-MAY-13 13:08	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN
MC20806-4	Collected: 10-MAY-13 11:45 By: DL AOC1-MW2			Received: 13-MAY-13	By:	
MC20806-4	SW846 6010C	20-MAY-13 13:12	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN
MC20806-5	Collected: 10-MAY-13 12:35 By: DL AOC1-MW1R			Received: 13-MAY-13	By:	
MC20806-5	SW846 6010C	20-MAY-13 12:19	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN
MC20806-6	Collected: 10-MAY-13 13:35 By: DL TW-21D			Received: 13-MAY-13	By:	
MC20806-6	SW846 6010C	20-MAY-13 13:17	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN
MC20806-7	Collected: 10-MAY-13 14:30 By: DL AOC2-SB1-MW1			Received: 13-MAY-13	By:	
MC20806-7	SW846 6010C	20-MAY-13 13:22	EAL	16-MAY-13	DA	AS,PB,SE,V,ZN

New England ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC20806
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33173-MB	BC653551.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342

The QC reported here applies to the following samples: **Method:** CT-ETPH 7/06

MC20806-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	CT-ETPH (C9-C36)	ND	0.080	0.060	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	67%	50-149%

Blank Spike Summary

Job Number: MC20806
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33173-BS	BC653552.D	1	05/19/13	AP	05/16/13	OP33173	GBC3342

The QC reported here applies to the following samples: **Method:** CT-ETPH 7/06

MC20806-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	CT-ETPH (C9-C36)	0.7	0.524	75	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	62%	50-149%

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC20806
Account: FDG Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

Method: CT-ETPH 7/06 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
MC20806-2	BC653571.D	50.0
OP33173-BS	BC653552.D	62.0
OP33173-MB	BC653551.D	67.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	50-149%

(a) Recovery from GC signal #1

New England ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/16/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	17	40		
Antimony	6.0	1.2	1.9		
Arsenic	4.0	1.1	2.9	0.40	<4.0
Barium	50	.43	.81		
Beryllium	4.0	.17	.25		
Boron	100	.47	1.4		
Cadmium	4.0	.14	.5		
Calcium	5000	15	38		
Chromium	10	.5	1.4		
Cobalt	50	.15	.4		
Copper	25	.79	7		
Gold	50	2.3	5		
Iron	100	4	20		
Lead	5.0	.76	1.7	-0.20	<5.0
Magnesium	5000	53	59		
Manganese	15	.16	.81		
Molybdenum	100	.25	.77		
Nickel	40	.15	.57		
Palladium	50	2.3	7.6		
Platinum	50	5.2	14		
Potassium	5000	64	160		
Selenium	10	1.7	4.8	-0.60	<10
Silicon	100	1.7	45		
Silver	5.0	.62	1		
Sodium	5000	23	60		
Strontium	10	.2	.26		
Thallium	5.0	.67	1.9		
Tin	100	.23	1.4		
Titanium	50	1.9	1.8		
Tungsten	100	7.3	16		
Vanadium	10	.95	2.8	0.10	<10
Zinc	20	.13	.5	0.30	<20
Zirconium	50	2.3	2.2		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20980: MC20806-1, MC20806-2, MC20806-3, MC20806-4, MC20806-5, MC20806-6, MC20806-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/16/13

Metal	MC20806-5 Original	MS	Spikelot MPICP	% Rec	QC Limits
Aluminum	anr				
Antimony	anr				
Arsenic	0.0	508	500	101.6	75-125
Barium	anr				
Beryllium	anr				
Boron	anr				
Cadmium	anr				
Calcium	anr				
Chromium	anr				
Cobalt	anr				
Copper	anr				
Gold					
Iron	anr				
Lead	0.0	957	1000	95.7	75-125
Magnesium	anr				
Manganese	anr				
Molybdenum					
Nickel	anr				
Palladium					
Platinum					
Potassium	anr				
Selenium	10.0	509	500	99.8	75-125
Silicon					
Silver	anr				
Sodium	anr				
Strontium					
Thallium	anr				
Tin					
Titanium	anr				
Tungsten					
Vanadium	0.0	512	500	102.4	75-125
Zinc	5.5	502	500	99.3	75-125
Zirconium					

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20980: MC20806-1, MC20806-2, MC20806-3, MC20806-4, MC20806-5, MC20806-6, MC20806-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/16/13

Metal	MC20806-5 Original	MSD	Spikelot MPICP	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	0.0	497	500	99.4	2.2	20
Barium	anr					
Beryllium	anr					
Boron	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Gold						
Iron	anr					
Lead	0.0	941	1000	94.1	1.7	20
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel	anr					
Palladium						
Platinum						
Potassium	anr					
Selenium	10.0	501	500	98.2	1.6	20
Silicon						
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium	anr					
Tungsten						
Vanadium	0.0	511	500	102.2	0.2	20
Zinc	5.5	498	500	98.5	0.8	20
Zirconium						

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20980: MC20806-1, MC20806-2, MC20806-3, MC20806-4, MC20806-5, MC20806-6, MC20806-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:		05/16/13						05/16/13	
Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum	anr								
Antimony	anr								
Arsenic	495	500	99.0	80-120	498	500	99.6	0.6	20
Barium	anr								
Beryllium	anr								
Boron	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Gold									
Iron	anr								
Lead	958	1000	95.8	80-120	975	1000	97.5	1.8	20
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium	anr								
Selenium	487	500	97.4	80-120	494	500	98.8	1.4	20
Silicon									
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium	anr								
Tungsten									
Vanadium	506	500	101.2	80-120	518	500	103.6	2.3	20
Zinc	503	500	100.6	80-120	509	500	101.8	1.2	20
Zirconium									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20980: MC20806-1, MC20806-2, MC20806-3, MC20806-4, MC20806-5, MC20806-6, MC20806-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 05/16/13

Metal	MC20806-5 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	0.00	0.00	NC	0-10
Barium	anr			
Beryllium	anr			
Boron	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Gold				
Iron	anr			
Lead	0.00	0.00	NC	0-10
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium	anr			
Selenium	10.0	0.00	100.0(a)	0-10
Silicon				
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium	anr			
Tungsten				
Vanadium	0.00	0.00	NC	0-10
Zinc	5.50	10.5	90.9 (a)	0-10
Zirconium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC20806
Account: FDG - Shaw Environmental & Infrastructure
Project: NRG Middletown, 1866 River Road, Middletown, CT

QC Batch ID: MP20980
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:

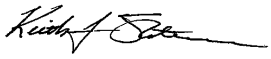
Metal

Associated samples MP20980: MC20806-1, MC20806-2, MC20806-3, MC20806-4, MC20806-5, MC20806-6, MC20806-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

ATTACHMENT 2

Engineered Control Inspection Checklist
Middletown Generating Station
Middletown, CT

Completed by: Keith Shortsleeve
Company: NRG
Date: 02-05-13
Signature: 

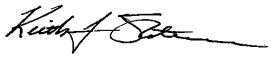
Problem Code

ACE 1 or 2 = Aggregate Cover Erosion, Moderate or Severe
ACSW 1 or 2 = Aggregate Cover Subsurface Washout, Moderate or Severe
SCE 1 or 2 = Soil Cover Erosion, Moderate or Severe
SCSW 1 or 2 = Soil Cover Subsurface Washout, Moderate or Severe
GD 1 or 2 = Vegetation Dead, Moderate or Severe
GE 1 or 2 = Vegetation Erosion, Moderate or Severe
GP = Vegetation Water Ponding Observed
GSF = Vegetation Slope Failure
GSW = Vegetation Subsurface Washout
PDSO = Perimeter Drainage Swale Obstructed
DCO = Drainage Culvert Obstructed
AP C1 = Asphalt Pavement Cracks > 1/2 inch
AP C2 = Asphalt "Potholes"
SF = Slope Failure
O = Other

Remedial Areas (1)	Problem Code	Repair Requirements and Notes (Provide Description)
AOC 1		
Low Permeability Engineered Control		
Aggregate Engineered Control		Construction incomplete.
Soil Engineered Control		Construction incomplete.
Prior Repair Area (2)		Construction incomplete.
AOC 8		
Asphalt Engineered Control		New Asphalt Planned.
Prior Repair Area (2)		Construction Incomplete.
AOC 13 (Eastern half)		
Aggregate Engineered Control		Construction incomplete.
Soil Engineered Control		Construction incomplete.
Asphalt Engineered Control		Construction incomplete.
Prior Repair Area (2)		

Notes:
(1) Use Sheets 1, 2, 3 and 4 of the Engineered Control Drawings for the Inspection Plan.
(2) Document condition of each area identified and repaired during previous inspection.

Engineered Control Inspection Checklist
Middletown Generating Station
Middletown, CT

Completed by: Keith Shortsleeve
Company: NRG
Date: 06-06-13
Signature: 

Problem Code

ACE 1 or 2 = Aggregate Cover Erosion, Moderate or Severe
ACSW 1 or 2 = Aggregate Cover Subsurface Washout, Moderate or Severe
SCE 1 or 2 = Soil Cover Erosion, Moderate or Severe
SCSW 1 or 2 = Soil Cover Subsurface Washout, Moderate or Severe
GD 1 or 2 = Vegetation Dead, Moderate or Severe
GE 1 or 2 = Vegetation Erosion, Moderate or Severe
GP = Vegetation Water Ponding Observed
GSF = Vegetation Slope Failure
GSW = Vegetation Subsurface Washout
PDSO = Perimeter Drainage Swale Obstructed
DCO = Drainage Culvert Obstructed
AP C1 = Asphalt Pavement Cracks > 1/2 inch
AP C2 = Asphalt "Potholes"
SF = Slope Failure
O = Other

Remedial Areas (1)	Problem Code	Repair Requirements and Notes (Provide Description)
AOC 1		
Low Permeability Engineered Control		Construction partially complete.
Aggregate Engineered Control		Construction incomplete.
Soil Engineered Control		Construction incomplete.
Prior Repair Area (2)		Construction incomplete.
AOC 8		
Asphalt Engineered Control		New Asphalt Planned.
Prior Repair Area (2)		Construction Incomplete.
AOC 13 (Eastern half)		
Aggregate Engineered Control		Construction incomplete.
Soil Engineered Control		Construction incomplete.
Asphalt Engineered Control		Construction incomplete.
Prior Repair Area (2)		

Notes:
(1) Use Sheets 1, 2, 3 and 4 of the Engineered Control Drawings for the Inspection Plan.
(2) Document condition of each area identified and repaired during previous inspection.